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Editorial

Maurice R. Ahrens

A Look at Issues

THE past decade has been a most significant era for junior high school education. During this period the junior high school has come into its own as an established organizational unit in our system of public education. The unprecedented increase in enrollment above the elementary school level has created urgent needs for new buildings involving the expenditure of vast sums of money. This has forced administrators and boards of education to make decisions regarding the structural organization of the school system. Fortunately, in most communities decisions have been made to include the junior high school as an integral, respectable unit in the organizational pattern.

There are distinct reasons why the junior high school movement has become an established one. Studies in human development indicate that 12- 14-year-olds have unique problems and needs. The junior high school is now conceived as an essential organizational unit, free from traditional impacts, which can provide a program designed to help these young people with their problems and needs. Furthermore, beyond the elementary school there is need to expand and extend the program of general education, to provide for exploration and articulation and to realize other important functions familiar to those who are conversant with junior high school education.

As the status and significance of the junior high school program have become accepted and established, there have been and will continue to be attempts, both within and outside the profession, to "capture" the program for purposes which are often quite foreign to the functions upon which students of junior high school education have agreed. Movements are now afoot to ignore the unique needs and problems of the 12-14 year age group and to extend downward the senior high school program. This would essentially result in a six-year senior high school with many subjects taught in grades 7-9 which are now taught in grades 10-12.

Function and Purpose

The movement to make radical changes in the functions and purposes of the junior high school and in the focus of its program has raised many issues which must be solved in the very near future.

The first of these issues has to do with the functions and purposes of the junior high school program. Students of junior high school education are generally agreed upon the objectives of the program. There is, however, much yet to be

accomplished in the implementation of these carefully determined purposes. Shall we dedicate our efforts to developing a program based upon these broad purposes, or shall we employ a haphazard approach yielding to whims, pressures and special interests rather than using a frame of reference based upon the real needs, interests and concerns of this age group, including the impact of society upon them?

A second crucial issue which must be faced realistically is the relationship between general education and specialization in the junior high school program. It has been customary in the past, when the seventh and eighth grades were a part of the elementary schools, for the instructional program to be wholly one of general education. There is evidence to indicate that some junior high schools are abandoning the general education focus in these grades and through highly elective programs moving toward specialization.

It is interesting to note that while this is actually happening in junior high schools, more and more colleges are instituting general education programs in the first two years, representing from one-half to three-fourths of the student's program. Should the general education program be reduced in the junior high school to permit the beginning of specialization? Is the optimum time to begin specialization during the junior high school period? What is important for impressionable preadolescents and early adolescents, expanded general education or a reduction of breadth for the sake of developing depth in a particular learning area?

A third significant issue falls in the area of teacher education and certification. Although most teacher education institutions have programs for elementary and high school teachers, few have developed programs for teaching in junior high schools. Furthermore, while most states have separate certification for elementary teachers and teachers in grades 9-12, there are few states that recognize the need for the certification of junior high school teachers. Because of these two conditions, the junior high school has become a "no man's land," staffed with many teachers who do not understand children in this age group and who are not prepared to do an effective job of teaching and achieving the purposes of the junior high school program.

Shall we develop career teachers for junior high schools as we do for elementary schools and high schools? Or shall we continue to make the junior high school a dumping ground for teachers who cannot obtain positions in senior high school or who are unsuccessful at the other levels?

Only a few of the major issues in junior high school education have been mentioned here. These and other issues are discussed in the articles in this issue of *Educational Leadership*. There is an urgent need for careful consideration and study of the junior high school program. Through this issue of its journal, the Association for Supervision and Curriculum Development is encouraging and lending assistance to all who are concerned about these issues and problems. The future of the junior high school program rests largely in the leadership provided by the membership of the Association.

—Maurice R. Ahrens, *Professor of Education and Assistant Dean, School of Education, University of Florida, Gainesville.*

M. Dale Baughman

Needed: A square deal for pupils of

The Awkward Age

PUPILS of the awkward age are those youth who stumble on the threshold of adolescence. They are in need of a "square deal" in our schools.

In the first quarter of the 20th Century educators and parents alike were reasonably pleased with the quality of education in grades one through six and in the later years of secondary education. They seriously questioned, however, the effectiveness and appropriateness of education for early adolescents. Among the major factors in such skepticism were (a) an alarming number of drop-outs at about seventh grade level and (b) frequent vehement expressions by students revealing their disapproval of school. It was not unusual to find pupils who had always shown enthusiasm for formal learning suddenly becoming indifferent and even antagonistic toward education. As one might expect, studies of early school leavers almost without exception showed lack of interest to be a chief cause.

Throughout the years because of inadequate understanding and appreciation of early adolescence, inappropriately trained teachers, and impotent teaching methods, the junior high school has been no less than the "tramp steamer of the educational fleet." If we are to provide educational justice for junior high school youth, it is imperative that we look at (a) those whom we teach, (b) what we teach, (c) how we teach, (d) the setting in which we teach, and (e) those who teach.

Those Whom We Teach

Studies of early adolescents show that the behavior pendulum swings in a far reaching arc from a satisfying maturity to surprising and oft dismaying immaturity. Girls vacillate from BB guns to brassieres and boys from popsicles to motorcycles. Like a house on moving day they exhibit disarray and disorganization, but fortunately this is only a temporary period. The house is at last put in order just as are the lives of early adolescents. To many adults this period on the teeter-totter seems long and unbearable, but to most adolescents it must seem like an eternity of frustrations.

Indeed, most early adolescents are awkward socially, physically and emotionally, although obviously not to the same degree in each sphere. Shoe sizes in a junior high school class may range from 3 to 10, hat sizes from 6 to 7½,

heights from 4'7" to 6'2" and weights from 95 to 195. Too often the unaided eye fails to see similar ranges in interest, drive, ability, aptitude and aspiration.

Physical growth rates are uneven and each individual has his own timetable. Even more complicating perhaps are differences between the sexes. Of course parents and teachers must know these physical growth characteristics of early adolescence—but this knowledge alone is insufficient. Pupils themselves desperately need such knowledge.

Poor posture in rapidly growing youngsters more often than not is the result of a strong desire to be less different and those who would do justice do not harangue on this matter. The guideline is, "if you don't understand them, please don't misunderstand them." The rapidly growing youth frequently requires six meals a day! Just contemplate the multitude of mothers who proclaim, "No eating between meals when I prepare three wholesome and nutritious meals every day!"

In school life youth grow up singly, in twos and threes, in small groups, in large groups and in mass. At this age level—the junior high school years—we find the pupil's social life to be chiefly in twos and threes which we call "chumming," and in a relatively small group known as the "gang." The former educational relationship provides the sense of safety and security, a high priority need of early adolescents. Peer approval is gained from the latter small group relationship. John Carrington, Professor Emeritus of Illinois State Normal University, Normal, Illinois tells this story: "Recently, I was talking with a Bloomington man who told me how angry he often became with his early adolescent daughter. This time, it seems she had been hounding her father for a pair of buckskin sneakers to wear to school. He finally broke down and bought the shoes but much to his chagrin he caught the girl in the back yard scouring mud into the shoes with a brush before they had been worn the first time." Approval of peers is needed!

Other desires of these young people include parent approval and opportunities to be alone. The "early adolescent" wants very much to try his hand at some decision-making, but only with parental guidance in the background. At this developmental stage he doesn't want complete freedom, just parental blessing as he strives to control his own drives and behavior. Neither rigid supervision nor extreme neglect is effective as the strategy of parental and teacher guidance.

Most 12- to 15-year-olds have strong emotions. Expression and restraint of such intense feelings create real problems for the youngster as well as for those around him. Usually, the object is neither to stifle emotional expression nor to fan its embers. Reasonable emotional balance is the target.

Full intellectual maturity commonly occurs by age 15. Curiosity, yes! Enthusiasm, yes! Whether the experience of teaching such pupils is delight or drudgery depends pretty much upon the psychological organization of the teacher and his teaching approach.

What We Teach

Obviously, content must be adapted to the nature of the organism described earlier. If a balance of work, rest and play is indicated, let us not then insist on a preponderance of work, at least not for those who falter on such a regimen.

An emphasis on general education in the junior high school as a sequence in an integrated program, kindergarten through grade twelve, is desirable. If

this goal is not attainable in a practical sense, then certainly we need to integrate the program of learning experiences in grades seven through nine. The word integration is used here in its broadest meaning—not mere integration of learning experiences within the classroom, but also from grade to grade and from subject to subject. Integration of personality, too, is implied.

In the junior high school, pupils learn attitudes, ways of behaving, social skills, knowledge, habits and appreciations. They learn from what is taught, how it is taught, those who teach and from the setting in which instruction occurs. If we view the school as one of several social agencies organized, as a controlled and structured environment, to augment the child's natural environment, certainly we can see that the point of take-off is to be found in the life problems of learners, not necessarily in a chapter of a textbook.

How We Teach

Problems of learning are seldom, if ever, solved through organization. The teacher and his methods make the difference! Earlier it was pointed out that the child learns something from the behavior of the teacher. For example, he may learn patience or the lack of it. He may acquire enthusiasm, apathy or inertia. Enthusiasm and optimism are contagious to about the same degree as lethargy and pessimism. He who would teach junior high school youth must possess other unique qualities but suffice it to say that a worthy model for emulation is a vital element in the enterprise to insure the "square deal." One frustrated lad was heard to remark, "Two things in life I've had are ample—good advice and bad example." Unfortunately, our youth do get good advice in ladles and good examples in teaspoons.

The methods used by the teacher should grow out of his efforts to translate principles of learning into actual practice. All too frequently, I fear, junior high school teachers are unmindful of what we know about learning and how it occurs. I would suggest that at least twice each school year some attention should be given through the in-service educational program to learning theory and its implications. Learning and growing are personal but teachers can aid the process with assiduous application of methods which nourish the organism.

Among the methods which appear to acknowledge best the nature of young adolescents are pupil participation in planning, use of resource and experience units, use of community resources, the problems approach, and small group activities. Judicious use of the above methods and techniques requires considerable planning on the part of the teacher; consequently, there are many who cling to the assign-question-recite pattern of instruction.

Ministering to the unique needs of individual early adolescents is one of the real challenges to the junior high school. For some the path to adolescence and adulthood is relatively smooth and direct; for others it is bumpy and torturous. Dick *may be* a problem child but he likely isn't totally responsible for the label. When Dick has a problem, which is perhaps a more accurate statement of the situation, the triad of home-school-community has a problem—that of help-

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ing Dick solve his problem, because it grew by the nurture of environmental conditions.

The Setting in Which We Teach

The quality of instruction is more important than the type of organization, still the latter deserves consideration as one studies the setting for the teaching-learning process. With few exceptions educators today agree that some form of junior high school organization is superior to the traditional 8-4 plan. In the absence of experimental evidence, principals', teachers' and pupils' judgments have to be relied upon to identify the most desirable grade organization. The 6-3-3 pattern appears to have the edge in educational soundness in spite of the fact that the 6-6 division is rapidly gaining in popularity, especially in small cities and towns. Popular opinion would limit the junior high school enrollment to not less than 300 and not more than 900. The six-period and the seven-period day are most common.

We are now hearing cries of "toughen up" and "beef up" as teachers feel pressure to urge, prod, cajole and drive their pupils. Let us not, however, buy our results at too high a price; let us take care not to crowd out the bluegrass of creativity and individual dignity with the crabgrass of conformity and the single standard. It takes time for a boy or girl to grow! The "square deal" includes activities for these youths on the threshold of adolescence. We're not quite ready to trade in the choir robe for a Roman toga.

Most people with a stake in junior high school education agree that the major purpose of the school building is to house and implement the instructional program. It is readily obvious, however, that such close agreement does not exist on the part of parents, educators and non-parents when one goes beyond the fundamental axiom expressed in the preceding sentence. Educators, for example, are apt to emphasize instructional adequacy, parents demand safety and healthful conditions, and taxpayers insist on economy.

Few there are who question the wide range of criteria by which facilities are judged, and seldom do we expect the architect to observe in all of its implications each principle of construction and design. Nevertheless, design principles such as the following[1] are generally agreed upon:

safety
health
instructional adequacy
economy
flexibility
expansibility
aesthetics.

Over the years the junior high school housing story has been a sad one. Typically, new junior high school physical plants have been patterned after senior high schools. The literature is nearly devoid of recommendations and research evidence relative to the most appropriate building facilities for accommodating an educational program for young adolescents.

The time is past due for investigation into more detailed design and construction techniques for building the school homes for our pupils of the awkward age. Room sizes and shapes may need different planning; certainly such areas as shops, arts and crafts rooms, home economics laboratories, general science rooms, and general music rooms require planning of a different kind than for

[1] *Educational Specifications for Junior High Schools*, Denver Public Schools, Denver, Colorado.

senior high schools. Counseling and conference rooms seating 8 to 15 people are popular in many schools. Usually, they are found between large rooms of 1100 plus square feet where "block-time" classes are held.

Those Who Teach

In general, state certification requirements allow a teacher prepared and authorized to teach one or more subjects in high school to teach those same subjects in any grade of the junior high school. In most states teachers trained for the elementary grades may teach in grades seven and eight and sometimes in grade nine. Such teachers are not required to gain a better understanding of the early adolescent or of the history, purposes and functions of the junior high school. Indeed, the same requirement for senior high school teaching, subject matter specialty, is the criterion in use for employment in the junior high school.

Is the competency to teach a general competency? There is room for discussion but even if it is, we seldom expect the primary teacher to perform equally well as a teacher in the high school; neither do we assign the high school teacher to the primary grades and then demand effective results. The junior high school which is a unit in the vertical ladder desperately needs junior high school teachers, and just as desperately it needs to rid itself of those transitional teachers who are on the elevator "up" or the toboggan "down."

One hopeful sign is the present inclination on the part of state departments of education to study the possibilities of special certification for junior high school teachers. Another is the tendency for more and more teacher education institutions to give serious thought to a somewhat different pattern of preparatory experiences for future junior high school teachers. Experienced junior high school teachers and junior high school principals tend to agree on certain elements of the professional educational requirements for junior high school teachers. These elements are: diagnosis and treatment of reading problems; guidance; psychology of early adolescence; methods of teaching in the junior high school; history, philosophy and functions of junior high school education; and student teaching in the junior high school.

Critics of the junior high school idea, both those in higher education and those on the firing line, have long harped on the failure of the junior high school to provide effective articulation between the elementary school and the secondary school. They claim, and rightly so, that a need for better articulation was one of the prime reasons for the birth of the junior high school idea. Strangely enough, these same critics have neglected to aid the worthy cause of selecting, preparing and improving teachers for those pupils in transition from childhood to adulthood.

An old Talmudic legend tells of a heathen who once approached Hillel—that ancient and well known rabbi—and said to him, "I will convert to Judaism if you will tell me what it is about while I stand on one foot." Hillel in all his cleverness, replied, "The whole of Judaism is that thou shalt love thy neighbor as thyself."

I claim not the cleverness of Hillel but if I were asked to tell what the junior high school idea is about while my skeptic interrogator stood on one foot, I would say simply, "The whole of the junior high school idea is that it attempts to give a square deal to pupils of the awkward age."

John H. Lounsbury

How the Junior High School Came To Be

Success has marked the brief history of the junior high school.

WHEN Indianola Junior High School of Columbus, Ohio, opened in September of 1909, it was the first school to be specifically called a junior high school. Now, 51 years later, there are 5000 schools labeled junior high schools. Another 3000 are called senior high schools. Today, less than 6000 schools remain as traditional four-year high schools in 8-4 systems. The reorganized secondary schools, that is those that deviate from a four-year high school following an eight-year elementary school, now make up 76 percent of the 24,000 secondary schools and enroll 82 percent of the eleven million secondary pupils.[1]

The movement to reorganize secondary education has certainly come a long way since Charles W. Eliot first suggested the possibility of reorganization in 1888. Between that date and 1909-1910, the reorganization movement was confined primarily to the talking stage. Then the appearance of a number of new intermediate institutions moved reorganization into the experimental stage. During the 1920's the junior high school and its partners in the reorganization movement were rapidly growing educational innovations. In the 1930's the junior high school, the senior high school, and the combination junior-senior high school became accepted members of the American school family. By the close of the 1950's the separate junior high school, followed by the separate senior high school, had become the predominant pattern of secondary school organization in the United States. Together these institutions enrolled 50 percent of the secondary school population.

The movement centering around the junior high school, though already quite successful, is still a relatively young movement. Yet the span of this intermediate institution's existence is long enough so that the history of the junior high school movement can be viewed with reasonable objectivity. And it is appropriate to give some attention to the institution's historical development, for our understanding of the present and our vision for the future are incomplete without a knowledge of how and why the junior high school came to be.

[1] The figures given are 1959 estimates based on preliminary data as reported by the United States Office of Education in the May 1960 issue of *School Life*, p. 10-12.

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Multiple Causes

As might be expected, a number of causes underlie the development and expansion of the junior high school movement. Things are seldom as simple as they seem at first glance. The glib quick answer of a pseudo-expert satisfies only those who know less. A scholar sees deeper, notes interrelationships, and only hesitantly draws conclusions. With reservation then, the factors which have helped to bring about the tremendous growth of the American junior high school can be considered.

"What is the present after all, but a growth out of the past?" asked Walt Whitman. His question with its built-in answer was well stated, for institutions and major events never spring up independent of time and place. They evolve from and are shaped by the ongoing society. The junior high school is a prime example, for it truly grew out of the times and has continued to shift with the times. The whole history of the junior high school movement is closely paralleled to the social, economic and political developments of the half-century which encompasses its life. The reader may be expecting some more spectacular statements regarding how the junior high came to be, but that is really the essence of it. The junior high school was initiated, developed and grew because a variety of factors, all of which related to the times, and existing educational theory and practice, supported it in one way or another.

The junior high school did not grow simply because college presidents in the 1890's wanted secondary schools to speed up and improve college preparation. Nor did the junior high school develop because several national committees issued influential reports which supported reorganization proposals in the period 1892 to 1918. The junior high school did not grow because educators were seeking a solution to the appallingly high rate of drop-outs and retardation as revealed by the pioneer studies of Ayers, Strayer and Thorndike. The junior high school did not come about simply because many educators were levying criticisms on the existing system with its all-too-evident ills and shortcomings. Nor did the junior high school start because psychologists, like G. Stanley Hall, supported special institutions as being better able to cope with the "new beings" early adolescents were thought to be.

The junior high school did not grow because educators aspired to put into practice more completely new understandings of individual differences which the psychologists were clarifying through their research in the 1910's. The junior high school did not grow simply because it afforded an outlet for the strong reaction against traditional education led by noted educational philosophers. The junior high school was not caused by the fact that the growing masses of immigrants and urban dwellers required a more extensive type of citizenship education. The junior high school was not created because the many who never reached the later years of high school needed vocational training. The junior high school did not come to its current position because it was a good solution to the school building shortage caused by World War I and again by World War II.

No, the junior high school did not develop, grow, and achieve its present status because of any *one* of the enumerated factors; rather, it grew because of *all* of them. The credit for the junior high school cannot be given to Eliot, Thorndike, Hall, or any other individual.

Nor can the growth of the junior high school be written off simply because reorganization provided administrators with an expediency solution to the schoolhouse shortage problem. Many were the individuals who contributed to the development of the junior high school and many were the conditions which supported its growth. It was the interaction of the many conditions and factors which caused the successful growth of the movement.

In some instances, even the champions of the junior high school movement came from different philosophical camps. College men advocated reorganization for economy of time. Public school leaders were concerned over better meeting immediate needs and saw the junior high school as a means of doing this. Board of education members may have seen reorganization as an economy move, while teachers may have supported reorganization because it would bring about new and improved special facilities such as science laboratories.

A dominant factor, however, has undergirded the successful development of the junior high school movement over the long haul. This has been the desire of educators to provide an appropriate educational program for early adolescents. Such a desire was both an original impetus and a continuing concern. While certainly not denying the assistance of other factors in the development of junior high school education, we may note that the support of some of these factors has not been sustained. For instance, the original reason for reorganization, economy of time, was the movement's first fatality. The drop-out problem which motivated many early efforts to reorganize has largely been resolved at the junior high school level. The assistance which the junior high school received from the guidance movement is now given to other schools as well. But the attempt to provide an effective educational program based on the nature of young adolescents remains as the basic theme song of the junior high school movement.

Chronological Coincidences

"Nine-tenths of wisdom," said Teddy Roosevelt, "is being wise in time." And while we cannot credit an institution, such as the junior high school, with wisdom, this statement may point up an important reason for the successful development of the American junior high school. Accidentally, coincidentally, and in some cases by design, the junior high school seems to have been wise in time. Its growth seems to have been assisted by many chronological coincidences. The way a variety of developments worked together to the advantage of the reorganization movement is at least a partial explanation for the notable success which the movement has enjoyed.

What if G. Stanley Hall had published his volumes on adolescence in 1925 instead of 1905? What if the school building shortage caused by World War I had come *before* the series of committee reports dealing with reorganization rather than *after*? What if the drop-out studies had been made in the 1880's rather than in 1907-1911? What if the movement to chart individual differences had come about before any mention of reorganization had been made? A number of similar questions might be posed, and probably would be equally difficult to answer with confidence. They are, perhaps, purely academic, yet they serve to point up how important the chronological convergence of numerous fac-

(Continued on page 198)

Victor B. Lawhead

A Block of Time— for General Education

Integration of learning is fostered in a block of time longer than the usual period.

The best grounding in all formal schooling at all levels, both for special tasks and for general responsibilities, is a broad education in which the social, biological and physical sciences, mathematics, the humanities and the arts are learned in concert and in their relationships.[1]

THE significance of reorganizing instruction into more meaningful units and the necessity for blocking instructional time for effective use of direct, firsthand experience have been the concerns of thoughtful educators for many years. Early in this century, the introduction of half-day programs for vocational education, double periods for laboratory courses, and unlimited time after classes for extracurricular activities reflected the necessity for flexible scheduling to make learning more meaningful. On the contemporary scene fresh approaches in the form of educational television, the Trump proposals, independent study, and others have challenged time-honored concepts of the orderly 50-minute schedule and the neatly packaged bodies of subject matter apportioned to the school day.

An additional development of the past three decades to challenge further the efficacy of the fragmented daily program has been the steady growth of core programs in general education. Such programs have been characterized by an integration of learning within a longer block of time than the usual class period. A 1958 report from the United States Office of Education [2] indicated that approximately one-third of the separately organized junior high schools in this country now provide an extended block of time for general education.

Despite these encouraging developments toward unifying learning in general education, one may discern a number of current efforts to direct the curriculum of the junior high school toward more atomistic and fragmented patterns of organization. Although Dr. Conant

[1] The Fund for Adult Education. *Education for Public Responsibility.*

[2] Grace Wright. *Block-Time Classes and the Core Program in the Junior High School.* Bulletin No. 6, 1958. Washington, D. C.: U. S. Department of Health, Education, and Welfare, p. 1.

recommends a block-of-time in Grades Seven and Eight in which a student's classes in English and social studies would be staffed by the same teacher, his curricular recommendations imply rigid departmentalization. Educational television, which has a potential for programming viewing experiences of an interdisciplinary scope, has not capitalized on this possibility to any great extent. If the tentative schedule of courses proposed by the Midwest Program on Airborne Television Instruction [3] is indicative of patterns in this field, further departmentalization of instruction may be fostered by this medium not only in the junior high school but in the elementary school as well. Curriculum innovations in the areas of mathematics and science during the post-sputnik era have reflected an emphasis on early specialization, a condition that complicates further the task of offering a broad general education. In the light of these developments, it seems useful to look again at the nature and scope of core programs organized around the values, skills and knowledge required for common citizenship and to restate the case for such a program in the junior high school.

What is the core program and what advantages does it offer for the improvement of general education for early adolescents? The term "core" refers to that part of the curriculum which utilizes two periods or more for education that meets common or universal needs of students in modern society. Thus, two distinguishing characteristics are noted. *First*, the core is concerned with general or liberal education in contrast to special or technical education, which is also necessary but organized for the variety and differences in talents and interests. *Second*, instead of short, separate periods for isolated subjects, the core embraces a larger block of time for a unified organization of experiences which cut across the major disciplines. These comprehensive and integrating characteristics foster conditions which lead in practice to other discernible values of a core program. Of these, the following three have special significance for improving secondary education on the junior high school level.

Case for an Integrating Program

The core program encourages students to establish relationships between and among fields of knowledge.

Effective core programs have a planned content of problem areas. From these areas instructional units are developed that help students pull together knowledge from several disciplines in solving the problems of common citizenship. That modern systems of communication make possible the application of knowledge from many disparate fields to the common problems of living has been demonstrated by the scientists. In building a basic education for adolescents, we can recognize with them that, ". . . the very survival of our society itself may depend upon our ability to reaffirm in the most concrete and specific ways the unity of all human knowledge, both theoretical and practical." [4]

In dealing recently with the sequential and lateral relationships discernible in an effectively organized curriculum, Tyler wrote:

From the standpoint of the achievement of continuity and sequence, the discrete subjects, the discrete courses for each semes-

[3] *Midwest Program on Airborne Television Instruction*. Lafayette, Indiana: Purdue University, 1960. p. 12-13.

[4] J. H. Shera. "Knowledge Goes Berserk." *The Saturday Review* 39: 69, December 1, 1956.

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ter or year, and the discrete lessons, all impose difficulties that make vertical organization less likely to occur. There are too many boundary lines from one structure to another to assure of easy transition. Vertical organization is facilitated when the courses are organized over a period of years in larger units and in larger general framework.[5]

In making a case for establishing lateral relationships he continues:

> . . . to achieve integration is difficult if the organizing structure is composed of many specific pieces, since the tendency is to arrange the elements of each piece into some more unified form but to work out the relationship of each of these pieces to each other becomes more difficult as more pieces are involved. Thus, fifteen or sixteen specific subjects in the elementary school present more hazards to the achievement of integration than an organization which has four or five broad fields like the language arts, the social studies, health and physical education, and the like. A core curriculum involves even less difficulty in achieving integration so far as the interposition of boundaries between subjects is concerned.[6]

The core program facilitates guidance and counseling of students.

Since the core program takes its name from the fact that it represents the heart of general education, we should not overlook its secondary responsibility for nurturing specialized interests and abilities up to a point short of technical competence. This additional responsibility of general education defines further the guidance role of the core teacher. In placing primary emphasis on common learnings we sometimes overlook the additional task of general education of fostering unique interests and talents of pupils. The problem here is not one of meeting fully such needs but of bringing them into clearer perspective so that the student can choose wisely his experiences in the elective or special interest offerings. To assist him in this process is to provide him one of the most significant of guidance services—whether such service is called "counseling" or just good teaching.

The longer block of time that characterizes the core program has several implications for effective guidance of students. In contrast to other teachers on a staff the core teacher is likely to spend more time with a given group of pupils and hence should be in a better position to know them as individuals. Furthermore, sound testing procedures support the practice of having tests administered by persons who are close to the students and who probably will be in a better position to interpret results.

The content of the core is problem centered and hence more conducive to personal and social guidance. The core program with a planned structure of problem areas increases the possibility that the real life concerns of the students will be given attention in the classroom. An examination of proposed problem areas similar to those listed by Lurry and Alberty[7] reveals that all such areas offer opportunities for students to relate individual problems to those being studied in a wider context. Some areas, however, are more provocative than others. Con-

[5] Ralph Tyler. "Curriculum Organization." *The Integration of Educational Experiences.* 57th Yearbook, National Society for the Study of Education. Chicago: the Society, University of Chicago Press, 1958. p. 123.

[6] *Ibid.*

[7] Elsie Alberty and Lucille Lurry. *Developing a High School Core Program.* New York: The Macmillan Co., 1957. p. 60-89.

sider for example, the learning units that might fall under the broad areas of Self Understanding or of Employment and Vocation.

The core program connects the curriculum content more directly to the needs of students and demands of society.

A flexible content of problem areas enables the school staff to relate curriculum content more directly to student needs and to societal demands than is possible in the subject-centered program. Courses for students in separate disciplines often promote ground-covering attempts at teaching. Such attempts may have little direct bearing on the real problems of personal development or on the needs of the society that supports education.

In recent years curriculum design for the schools has drawn from two general sources its concept of the learner's needs —studies of individual development and of the social milieu in which children mature. The former source, having as one of its antecedents the emphasis on the "unfolding process" of Rousseau's naturalism, has encouraged a curriculum devoid of any discernible structure. The second source, orienting the curriculum primarily to societal demands, has been largely responsible for incorporating the logically organized bodies of subject matter into basic curriculum structure. Lyman Bryson, formerly with the Columbia Broadcasting Company's "Invitation to Learning" series, reflected this social emphasis when he wrote:

> The first task of every teacher is to arrange, out of superior knowledge and training and years, those experiences for the students which will bring out in them the qualities society has need of. The young learn by their own experiences—as the old do also. The difference is that the experiences out of which the adult finds and creates and criticizes the principles of his living may be accidental; those of the child are arranged by the teacher, who is deputy of the culture.[8]

The core program of general education reconciles these divergent tendencies by organizing for instruction significant problem areas around which student needs seem to cluster. Emphasis is placed on the personal-social nature of adolescent needs and the qualities of interaction in human experience. Viewed in this light, a concept of youth needs implies study of the adolescent behavior at various maturity levels and also an examination of the whole environmental pattern in which people operate. Study of the adolescent in his culture reveals needs that reflect the regularities and uniformities of the cultural pattern, but also deviations and variations of the individual. A core program with a flexibly planned block of time enables a staff to develop a general curriculum based on common needs in such areas as communication, value clarification, family life, intercultural relations, consumer problems and others of educational significance.

The core offers additional opportunities for improving instruction.

In addition to the foregoing values other obvious advantages of such a program, which call for less analysis, should be cited. For example, the core makes classroom practice consistent with sound learning principles by encouraging genuine problem solving. With curriculum content rooted in the persistent problems of living such as communication, family life, vocational planning, value clarification, community understanding, and others, the learning experience can reflect the important roles of interest,

[8] Lyman Bryson. *The Drive Toward Reason.* New York: Harper and Brothers, 1954. p. 38.

involvement and meaning in the educative process.

The core, with its extended block of time, provides the teacher with a curriculum organization which fosters the use of community resources in teaching. Direct firsthand experiences in the community with industrial, social and cultural agencies can be planned and developed without encroaching on time scheduled for other studies.

Furthermore, such a program in the junior high school provides a better transition for the pupil in the shift from the self-contained classroom of the elementary school to the departmentalized program of the senior high school. A junior high school having a core program offers students an experience which contains elements of both the elementary and secondary program. Such an arrangement assures a continuing of emphasis from one level to the next and helps the student make the shift with a minimum of distracting adjustments.

An additional advantage is gained by reducing the amount of pupil-accounting by the teacher. In a time of bulging class enrollments, the core offers the possibility of reducing materially the "student load" of the teacher. In contrast to having six separate classes with an aggregate of 150-180 pupils, the teacher with two core sections has about one-third the number of pupils with whom he may become closely acquainted for effective teaching and guidance.

Finally, the flexibility of organization offers increased possibilities for curriculum revision and improvement. Curriculum modification and improvement are more readily achieved in the flexible structure of the core since here it is not necessary to eliminate, add or rearrange specific courses each time a change seems desirable. Representing a reorganization of general education along a design that would eliminate the necessity for adding new courses constantly, the core offers the possibility for continuous appraisal with changes in emphasis being made as needed.

With education at all levels decrying the rigidity of curriculum structure based on narrow specialization, it seems most crucial in the junior high school to consider a program which asserts the unity of human knowledge but recognizes the need to extend individual talents toward diverse competencies.

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James C. Stoltenberg

Team Teaching in Junior High School

An experiment in team teaching seems to offer promise.

THE Wisconsin Improvement Program of the University of Wisconsin was organized under the direction of John Guy Fowlkes. The Program was concerned with teacher education and curriculum experimentation in local school systems. It also served as the impetus to the team teaching experiment at Franklin Junior High School in Racine.

Two staff members, Romayne Seidel and the writer of this article, attended the four-week conference in which the experiment was designed and later initiated at the local level.

The experimentation involved two teaching teams with three teachers on each team. The seventh grade team was assigned to six sections of students under the unified or block program of organization. Under this plan the three teachers were assigned separate unified period (English and Social Studies) classes, all meeting at the same periods. For example, the unified period teacher is assigned to two class sections under the normal plan or organization; one in the morning and one in the afternoon. Thus it was quite easy to implement the team teaching experiment by assigning the three teachers to two groups of 90 students. We provided a room that would seat three sections or approximately 90 students. This room, in addition to their respective classrooms, was a minimum requirement.

This same plan of organization was necessary for the three member eighth grade team. The use of the large room, however, was shared by both teams for large group instruction. In addition to the room, we supplied the teams with a tape recorder, overhead projector, and flip chart standards for the teaching process. An added service to teachers was approved by employing an instructional secretary to serve the two teams. The secretary's responsibility was to do all clerical work in order that staff members might have added time for preparation and planning. These items of facility and service are considered of utmost necessity in the program.

A Team Approach

The students then, receive the services and instruction from three teachers in the unified English-Social Studies program. The teachers plan together what is to be taught each week throughout the year from a general curriculum outline; why it is to be taught; by whom and

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how it is to be taught; how it is to be brought to the minds of the students clearly and effectively; whether it is to be large group, small group or varied instruction. They also plan the follow-up work that is necessary for all the students and determine whether grouping will be involved for certain students or sections of students throughout the week and why. In the eighth grade, one staff member has been assigned responsibility as team leader. This person serves as chairman in all planning sessions, seeing that plans are carried out and that everything that enhances the teaching-learning process is provided for and used. This leadership role has been rotated in the seventh grade periodically for experimental purposes.

As a result of our work this past year, a number of observations and outcomes can be projected. In starting the experiment a number of searching questions were asked. Is it possible to improve instruction using a team of teachers? If so, in what respects? If not, why not? Can we meet a number of comparable and measurable objectives more effectively with team teaching? What pattern of organization is best for instruction of junior high youth? Is there a better way to organize a school for instructional purposes? Do teachers have strengths and weaknesses that we can concern ourselves with more effectively? Can three staff members plan better than individual teachers? Is the cooperative plan better? Are the individual student achievements greater through the use of this method? Is grouping done more effectively? In other words, is this method a new and more effective approach to education of the junior high school student?

Some of the observations made at present are quite significant. The students tell us frankly that they prefer team teaching to conventional teaching. They state that some teachers can teach certain skills and understanding better than others. They like to gain the insights and beliefs and contributions of all their teachers; they sense the effective planning and follow-up that are evident; they like to be grouped for certain purposes but still be members of their basic class group. They like large group and small group instruction; they like being taught in the large group because all students should be exposed to facts and skills to a common degree, but when they return to their group or classroom their individuality and their special abilities can be put to work through varied and special assignments.

The teachers state that team teaching represents a workable compromise between the self-contained classroom situation and the subject centered period. It is a good solution to the homogeneous and heterogeneous grouping problem. Flexibility of grouping is one of the most positive aspects of the team approach. Such grouping can be done at the discretion of the team without processing or waste of time through office procedures. Student groups may vary for certain purposes. There is advantage in uniformity of presentation and motivation. There is value in teacher planning and preparation through sharing of abilities and ideas. The plan of instruction is well thought through and is of common knowledge to all members of the team.

Team teaching has allowed members to teach that which they feel they are best suited to teach. Teachers have felt

a superior sense of achievement and satisfaction in this experiment that they have missed in regular teaching. It has allowed each teacher to teach on a different basis and insured the best instruction available through uniformity of consideration and a chance to expand the original lesson along lines of personal capabilities. It has made the use of resource people more realistic by large group presentations.

A Common Period

One great necessity is a common planning period for each team. Our present schedule allows each team to meet daily on school time for one period. In addition to this they share an additional period for student and parent conferences. Thus each team teacher in the Racine junior high schools is assigned four teaching periods, one conference period and one preparation period.

In organizing this experiment the teachers were approached by the writer of this article prior to the opening of school. He presented the idea, which was then placed on a voluntary basis for the teachers. All six teachers accepted the idea. They then proceeded in the following three weeks to plan systematically the implementation of the experiment.

Harris Russell, Director of Instructional Services, and John Maxwell, Language Arts Consultant for the Racine Public Schools, have worked closely with the experiment. Some of the outcomes that have been observed by our joint team and resource staff have been: the potential of teaching to strengths, in-service growth for teachers, flexibility in meeting individual differences, saving of teacher time for professional preparation, richer use of resources, better evaluation and variety in teaching.

Some of the problems about the experiment have also been observed by members of the team and resource staff. All members of the team must have mutual respect for one another, they must operate on a cooperative and purposeful basis. There is need to agree on basic purposes, goals and objectives. Unless the interaction of the team is positive, there is a potential danger that progress will not be made. It is workable if all members are congenial and have the personalities and abilities to create and execute ideas. Problems of mechanics, such as pupil movement, space, ventilation, and viewing limitations, have been factors of minor concern at times this year. The problem of a teacher's knowing 180 students as compared to 60 and whether the team can share effectively in teachers' evaluation of students was another concern. Problems of student discipline were of minor significance in the large room due to thorough planning and effective teaching.

A cooperative relationship with the Wisconsin Improvement Program and the University of Wisconsin has been valuable in establishing a research design for the experiment. Dr. Julian Stanley, a specialist in educational research, has worked with the team throughout the year. We will continue to work with the Improvement Program staff and the University during the coming school year. The experiment is to be evaluated and measured at the end of the school year of 1961.

Our observations at this time must be made on a tentative basis. We have all been impressed by the team teaching idea and we sense its potential strengths and its potential weaknesses. We feel we have learned a great deal about teaching by our involvement in this experiment.

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Ovid F. Parody

Theory and Practice in Battle Hill Junior High School

THE Battle Hill Junior High School is one of three schools housed within a large school building located on Battle and McKinley Avenues in White Plains, Westchester County, New York. The name grows out of our Nation's history, since the school is on the hill where the Battle of White Plains was fought. The Battle Hill Elementary School consists of about 500 pupils and 20 teachers, while the junior high school has 375 pupils and 22 teachers. Both of these schools are part of the White Plains Public School System, while the third school, which is temporarily housed in one wing of the building, is the Westchester Community College.[1]

In this article an attempt is made to: (a) provide a glimpse of a junior high school in action; (b) outline the school's program; (c) describe the school's basic organization; and (d) suggest educational principles which guided its action.

A Junior High School in Action

If we were to visit the Battle Hill Junior High School, these are some things we would probably see:

—Pupils working out algebra lessons at the blackboard

—A class listening to Spanish records

—The student council meeting with its faculty sponsors

—Pupils reading aloud from an English anthology

—The school orchestra rehearsing in the auditorium

—A teacher explaining how to read a bar graph

—Pupils getting on a bus to go on a field trip

—Pupils working in small groups preparing committee reports in connection with social studies

[1] The writer served as principal of the Battle Hill Elementary and Junior High Schools from September 1949 until June 1960, when he joined the staff of the U.S. Office of Education. This article does not necessarily represent the thinking of the present Battle Hill School administration nor does it express the viewpoint of the U.S. Office of Education. The ideas and opinions herein expressed are solely those of the author.

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—Boys constructing bird houses and ash trays in industrial arts

—A class taking a written examination in math

—Boys and girls enjoying social dancing in the gym during the noon hours

—A pupil discussing a problem with a guidance counselor

—Pupils listening to tapes in a French class

—Parents being served tea as guests of a homemaking class

—The assistant principal discussing a discipline problem with a teacher and pupil

—A group of pupils working on a research problem in the library

—A parent and teacher carrying on a conference in the teacher's room

—The art teacher working with a group of students painting a mural for the hall.

These are some of the typical activities engaged in by pupils, teachers, parents and administrators as the school program is translated into action.

The School's Program

Typical schedules for 7th, 8th, and 9th grade pupils are listed here. In the 7th and 8th grades pupils have a single choice of an elective—a foreign language. In the 9th grade they may choose one from among a number of electives. Besides the regular offerings, a program of extraclass activities is provided for pupils in all grades. These are scheduled in an activity period during the school day.

Courses of Study

7th Grade	*8th Grade*
English	English
Social Studies	Social Studies
Mathematics	Mathematics
Science	Science
Physical Education	Physical Education
Home Economics	Home Economics
Shop	Shop
Music	Music
Art	Art
Library Instruction	
Reading Instruction	
Electives:	*Electives:*
French	French
Spanish	Spanish

9th Grade

Required	*Electives*
English	Art
Social Studies	Home Economics
Science	Shop
Mathematics	Typing
Physical Education	Algebra
	Foreign Languages
	Mechanical Drawing
	General Math
	Student Activities
	Clubs
	Student Government
	Musical Groups
	Intramural Sports

Block scheduling is used in the seventh grade. English-Social Studies are scheduled together in a double period as are Math-Science. This means that all seventh graders are scheduled with only two teachers for their four major subjects.

This organizational pattern eases the transition from elementary to junior high school by reducing the number of pupil-teacher contacts and increasing the amount of time pupils and teachers spend together.

In addition to the potential improvement in pupil-teacher relations, teachers are provided an opportunity for the cooperative planning of units of work.

We have now had a glimpse of this school in action and have seen an outline of its program with some description of its characteristics. Next we shall turn to a

description of how it is organized to achieve its purposes.

Battle Hill's Organization

Underlying all of these subjects and activities is a purposeful design. The school is thought of as performing three major functions. The general *administrative function* provides for the over-all organization, administration and supervision at the building level as part of the city-wide system. The planning of educational experiences through subjects and activities to facilitate pupil growth toward educational objectives is carried on through *curriculum function.* The counseling of students with special regard for the uniqueness of individuals and the needs of exceptional children is a responsibility of the *pupil-personnel function.*

These functions are not allocated to departments because they cut across all such divisions. Classroom teachers, for example, work in all three areas. Therefore it is difficult and undesirable to make a neat division of activities and a specific allocation of responsibilities. All three functions work better when they are in close interaction with each other. However, it is possible to allocate responsibility for general coordination and leadership in these areas.

At Battle Hill, the school principal, as the general administrator, is responsible for all three functions. He carries out this responsibility by working closely with three coordinators. The administrative function is coordinated by the assistant principal, curriculum activities are coordinated by the helping teacher and the coordination of pupil-personnel service is the responsibility of the director of guidance.

The school principal, the assistant principal, the helping teacher, and the director of guidance serve as the executive committee for the school. The executive committee is augmented by representatives elected by the faculty to form a planning or steering committee to assist the executive committee.

The focal point of all these activities is the guidance of pupil progress toward the objectives of the school.

Battle Hill's Objectives

Several years ago the staff members were asked to write down their purposes. Just what were they trying to accomplish in each of their areas? The individual statements of teachers were then integrated through a series of faculty discussions into a statement which could be accepted as our common school-wide objectives. These were formulated as follows:

We seek to help each pupil:

1. Become more self-reliant in the situations of everyday living
2. Communicate more effectively through reading, writing, speaking, listening, and developing skill in arithmetic
3. Cherish and help perpetuate our great democratic heritage through the study and practice of good citizenship
4. Develop an understanding of the problems of our local, national, and world communities
5. Establish and maintain good human relationships in home, school and community
6. Maintain and improve physical and mental health
7. Use the scientific method with increasing competence and feel at home in the world of nature
8. Find joy in creative expression or intelligent appreciation through a variety of recreational activities
9. Discover vocational aptitudes and opportunities
10. Choose wisely among the educational opportunities of the Senior High School

11. Express truthfulness, goodness and beauty in daily living.

Some of these objectives are more pertinent to the work of specific departments than are others; yet all departments can make some contribution to each objective. Thus these objectives tend to unify and coordinate the efforts of all teachers.

Guidelines to Action

During the past decade at Battle Hill, certain guiding principles developed which provided special emphases for the school. Sometimes these principles were operative as unexpressed basic assumptions, at other times they were consciously expressed when dealing with problem situations. Of course, all faculty members did not subscribe fully to all of these ideas; there were varying degrees of acceptance and commitment. Yet there was sufficient consensus to provide a "rationale" for the school.

Curriculum

Curriculum is a composite term which becomes manageable when broken into its basic elements:

Offerings, learnings, process

—A person says curriculum, meaning offerings

—A listener hears curriculum but thinks of learnings

—Confusion results.

We need to think of the process through which offerings and learnings are woven into behavior.

The learner should become responsible for directing his own learning.

—As the learner matures, responsibility should shift from the teacher to the learner

—Pupils should be actively planning, choosing, evaluating in keeping with their maturity levels.

Learning should be carried on in a spirit of discovery.

—Junior high pupils should adventure in the broad areas of human experience

—Through the exploration of their world, they should discover their interests, needs and abilities and clarify their self-concepts.

Learning is not complete unless it produces a change in behavior.

—Memorizing the Constitution doesn't automatically make a good citizen

—Behavior grows out of our perceptions

—If we are to change behavior, we have to change the learner's perceptions.

The school should be deliberately planned as a learning environment.

—Classrooms should provide stimulating centers of interest

—Teachers should have a variety of materials and resources at their command

—Flexibility should be built into the use of time, space, materials and personnel.

Guidance

Guidance is not a separate department, it is an essential part of the teaching-learning process.

—Specialized guidance personnel are necessary—but—

—One of their major responsibilities should be the re-education of teachers

—A new professional role should emerge: teacher-counselors.

The essence of discipline is the development of internal goals and controls as the individual matures.

—The positive constructive aspects of discipline should be stressed as much as the discipline of restraint

—Discipline which frees a person to achieve is as necessary and desirable as the discipline of restraint.

Respect for personality and for individuality.

—The unique individual is the irreducible element in education

—Grouping, marking, promotion, setting standards, and other school practices must accept and provide for this basic fact.

A school should have an emotional tone that is both warm and friendly, firm and supporting.

—An emotional climate can facilitate or inhibit human growth

—Fear is contractive, love is expansive

—The way a person feels about what he learns is just as important as what he learns.

Administration

Administration is a service function which provides leadership.

—The democratic leader integrates his ambitions with the welfare of the group

—He helps the group identify its goals, clarify its problems, adopt effective ways of working together and of evaluating results.

The junior high school is a part of a system-wide organization extending from K-12 and must be planned and operated within this context.

—Human growth is a continuous process

—We do injustice to it when we break it into arbitrary fragments

—Our concern should not be for the preservation of the junior high school organization but rather for making the best provisions for the continuous growth of the early adolescent.

Cooperative planning not only gets the job done but helps build democratic personalities.

—Pupils need to work together

—Teachers need to work together

—Parents need to work together

—Pupils, teachers, and parents need to work together.

Parental and community cooperation grows out of understanding and participation.

—A community will not support a program it does not understand

—A community cannot understand a program without being informed

—A community cannot be informed by just being told; participation is necessary.

Theory should guide practice and practice in turn should remake theory.

—Theory without practice is sterile

—Practice without theory is blind

—We need to keep theory and practice closely joined through a continuous process of in-service education.

It was this rationale that gave the school its characteristic atmosphere as a learning environment for early adolescent boys and girls.

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Ralph E. Chalender

A Unified Studies Approach

A system creates a program in line with its aspirations and needs.

Each society develops its schools in terms of its unique traditions, aspirations and needs. While the so-called traditional high school curriculum may have been appropriate for the 300 year period of frontier development, this type of school is no longer suited to our needs.[1]

MEMBERS of the Board of Education of the Shawnee-Mission District Schools found themselves in complete agreement with this statement when they began to develop plans for a curriculum to be used in the junior high schools in the district.

In the fall of 1955, the Shawnee-Mission Schools began the operation of four junior high schools. Up to this time the K-8-4 educational plan was used in Northeast Johnson County, Kansas. Pupils of elementary age attended schools throughout the two townships of Mission and Shawnee, all administered as separate districts. For many years pupils graduating from the eighth grade attended Shawnee-Mission Rural High School for the four years of senior high school.

[1] Association for Supervision and Curriculum Development. *Preparation of Core Teachers for Secondary Schools.* Washington, D. C.; the Association, a department of the National Education Association, 1955. p. 5.

Curriculum plans were initiated by Howard McEachen, Superintendent of Schools. He sent a detailed questionnaire listing 244 items to 187 schools in 48 states. School characteristics and policies, curriculum practices and evaluation methods were examined. Approximately two thirds of the schools studied used a block of time within which units of work cut across subject matter lines in grade seven. More than 30 percent of the seventh grades organized on a departmental basis planned to adopt the block of time class. While a block of time was being used in many schools in grade eight the number was not as great, 41 percent, and in grade nine only 22 percent of the schools were following this practice.

Prior to the survey, teachers had been working at Shawnee-Mission High School and at the University of Kansas in study groups and workshops, formulating plans for the curriculum of the junior high schools. The Board of Education studied the recommendations of the study groups, the research of the workshops,

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the results of the survey, and decided to require Unified Studies for all grades in the junior high school.

A Required Course

Unified Studies is a required course for all junior high school pupils in the Shawnee-Mission District Schools. This course requires a relatively large block of time. In grades seven and eight, a three hour time block is provided and in grade nine a two-hour block is used. Subject areas in grades seven and eight include social studies, language arts and science. In grade nine social studies and language are included in the two-hour block of time. The Unified Studies program for the Shawnee-Mission District Schools was designed for the purpose of promoting and developing a democratic way of life. Some of the main objectives set up by the planners of this program include: to provide opportunity for the learner to have experience which will help him become sensitive to problems of common welfare in the family, the school, the community, and the nation; to teach him to work with others in the solution of these problems; to develop his feeling of individual responsibility for common welfare; to help him act in harmony with what he says and believes; to improve his individual skills; and to broaden his understanding of the physical and social world.

After it was decided to have block-time classes in the junior high schools, the Board of Education of the Shawnee-Mission schools instructed the superintendent to direct work on a definite outline of subject content which would be used and included in resource units. It was planned that the resource units would be used by the teachers as guides in their teaching of Unified Studies.

Resource units which were to be used in the Shawnee-Mission Junior High Schools were prepared by groups of teachers from the elementary schools of the area and some of the staff of the senior high school. They were prepared during several years beginning in 1952 and ending in 1955. There have been some changes in the original units; however, many of the units are being used as they were written by the study groups. The revision of units has been done by groups of teachers in much the same manner as the original units were written. The following units are now required for the seventh grade:

We Are the Junior High School
Let's Improve Our Communication with Others
How Do We Find Our Way about the World?
We Live in Many Communities
Living in Harmony with Myself and Others
What Is Science?
How Do Plants and Animals Grow?

Required units for grade eight include the following:

Looking Ahead
Let's Improve Our Communication with Others
How Did the United States Become a Nation?
Westward Expansion and the Civil War
How Do We Govern Ourselves in a Democracy?
How Did the United States Become the Greatest Producer of Goods in the World?
How Can We Conserve Natural Resources?

Required units for grade nine include the following:

Looking Ahead
Let's Improve Our Communication with Others
Careers
Interdependence in a Shrinking World

The United Nations

One or more of the following areas: Russia, South America, Africa, Western Europe, India, China.

Evaluation

The Unified Studies program at Shawnee-Mission is now in its sixth year of operation. During this period the program has been under constant evaluation by pupils, parents, teachers, and administrators. Several doctoral candidates from the University of Kansas have conducted studies of the Unified Studies program.

During the school year of 1959-60 the author made a thorough study of the subject content and the teaching procedures used in the Unified Studies classes in the Shawnee-Mission Junior High Schools.

Unified Studies teachers are constantly reminded of the need for evaluation. The Unified Studies program offers many ways of checking the progress of pupils in regard to interests, attitudes and growth. Evaluation is a continuous process, not merely a terminal activity. Opportunities present themselves daily to evaluate the success of the selection of content and the use of resources and materials. Was the unit worth the time spent? What did the pupils gain from it? Have the pupils increased their ability to listen carefully and critically? Did the pupils work effectively as individuals and in groups? How could the unit be improved? Should it be required or optional another year?

Such questions are a sampling of the many that are used on a check list to evaluate the success of the teaching-learning unit. Evaluation should be a daily habit. By using a large block of time, the teacher has many opportunities to help pupils evaluate their progress individually. Self-evaluation is an important aspect of the Unified Studies program and should be used continuously.

In evaluating the teaching-learning unit, the Unified Studies teacher is encouraged to use the following categories set up by the members of the research group who conducted the Eight-Year Study. In using this check list it is suggested that the teacher ask, "Did this unit in some way contribute to the following items?"

The development of effective methods of thinking

The cultivation of effective work habits and study skills

The inculcation of social attitudes

The acquisition of a wide range of significant interests

The development of increased appreciation of music, art, literature, and other aesthetic experiences

The development of social sensitivity

The development of better personal-social adjustment

The acquisition of important information

The development of physical health

The development of a consistent philosophy of life.

Fifty-one teachers who had taught one or more years in the system were interviewed to secure information regarding the teaching of Unified Studies. The interviews were based upon structured questions which were designed to secure information about subject content and the types of procedures used in teaching the various phases of the course. Each interview was tape recorded.

In general, all teachers used some form of committee work during the year. Teachers usually select committees according to the pupil's interests. The methods used in getting all pupils to work in committees differed. The most essential factor reported was the impor-

tance of knowing something about each individual's needs, interests, personality, and ability to get along with others.

All classes have a weekly library period. Ninety-three percent of the teachers found the librarian to be of help in locating materials and assisting in finding resource materials.

The experiences which pupils have working together were found to be most helpful in the development of oral communication skills.

All teachers interviewed reported that they found many opportunities in all the units of work to encourage creative writing.

In general teachers reported that they did not find it difficult to teach the mechanics of expression in relation to the regular unit of work. Several of the teachers have digressed from the Unified Studies approach and are teaching grammar as a separate subject. There is much uniformity in the methods used in teaching the parts of speech, capitalization, punctuation and spelling.

Teachers reported that a wide and commendable selection of books and equipment is provided for the teaching of geographical concepts.

Social skills, attitudes, interests, work study habits, appreciations and self-evaluation techniques are some of the important areas mentioned as being a part of the guidance provided for pupils in the Unified Studies classes.

Many of the teachers reported that teaching Unified Studies was more difficult than teaching in the traditional method but that it was more challenging and rewarding. The most frequently mentioned values of Unified Studies included the integration and correlation of materials; development of better work study skills; the development and furthering of democratic procedures; the development of more acceptable social habits; the opportunity for group and individual guidance; the furthering of individual interests through the wide variety of subject matter and the opportunity to develop critical thinking.

Since the first year of Unified Studies in the schools there has been a general improvement in the teaching procedures.

According to all studies which have been made, a large percentage of the teachers at Shawnee-Mission like the Unified Studies program and consider it to have at least four distinct advantages. These advantages given in order of the frequency of mention by teachers are as follows:

1. Unified Studies activities are more likely than a separate-subject approach to teach social values and meanings.
2. The Unified program provides more opportunities for learning through personal experience and through the use of a wide variety of materials.
3. The opportunity to work with a variety of materials in a unit of work makes learning more concrete.
4. The Unified program makes available a larger block of time for carrying out projects involving excursions and other realistic learning activities.

In summary, this has been the story of the planning, development and evaluation of one phase of a junior high school curriculum. There are many ways to evaluate a curriculum. One way to evaluate some facets of a curriculum is through what teachers say they do. This method has been used with apparent success at Shawnee-Mission. The teachers and school administrators are pleased with the results of the evaluations of Unified Studies. Apparently the parents and other citizens, too, are satisfied with the findings.

John R. Mayor
and John A. Brown

New Mathematics in the Junior High School

Now being developed is a new approach to mathematics.

CURRICULUM development may be based on subject matter and on the psychology of problem solving and decision making. Studies in problem solving indicate that a clearly understood concept plays an important role in learning. In learning one may classify what he perceives through concepts already learned. Consequently, today's curriculum builders are interested in the psychology of concept formation.

Psychological Considerations

When a person is faced with a problem for which he does not have a ready solution, he seeks patterns and elements common to related problems for which he does have a solution. The information before him may be chaotic but he tries to make sense out of it. In trying to make sense out of a new situation, he looks for familiar patterns and principles or properties. Looking for a pattern is generally a matter of classification. Classification can be accomplished in two basic steps: (a) describing the class by common properties; or (b) listing all possible members of a class. In many cases classifying by properties will enable the learner to identify a configuration in a seemingly disorganized situation. Identification of such a scheme will facilitate (but not guarantee) a satisfactory solution of the problem. Further attempt to identify principles and properties as part of a familiar pattern may be necessary.

A curriculum in mathematics that provides experiences with mathematical structures and properties which are important in the development of new concepts enables the teacher to take full advantage of what he knows about concept formation and problem solving. For example, in the new junior high school mathematics a concept of a triangle, different from that possessed by Euclid, is introduced. This choice is made because the idea of triangle as the union of the sets of points on three line segments is more easily related to other mathematical structures which are a part of the course. A similar statement can be made about other ideas such as additive inverse and the number of selections of n things

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taken *r* at a time. Developing a concept is a matter of building upon past concepts and relating the old to the new. One of the most difficult problems in curriculum development is the blending of new ideas with old ideas to bring about a higher level of understanding.

Mathematical Considerations

The new mathematics courses for grades 7, 8, and 9 have been developed with first consideration given to mathematical properties. Thus there is emphasis on "systems." Properties of systems can be the basis of a classification method. The natural numbers are first introduced and such properties as groupings, order, closure, and identity are presented. After successful experiences with the natural numbers, the pupil then meets situations which cannot be solved by numbers in this set. The arithmetic numbers (whole numbers and fractions) are then identified and their properties are developed from experiences with natural numbers. The concept of number has thereby been extended to a higher level. When the time is appropriate, the concept of number is extended to the system of rational numbers, which includes negative numbers and zero. This new number system can be studied in terms of ideas already learned. An important point is that the properties identify the system.

Present psychological studies show that youngsters can learn many mathematical ideas which in the past we have reserved for adults. The ability of pupils to abstract and to do informal deduction has been underestimated. If a concept is studied in a proper setting many seemingly "difficult" ideas can be understood by the young learner. A curriculum problem is to select and present the appropriate setting. The vocabulary must be in the reach of the individual; there must be past experiences to build upon; new experiences must be built upon the old; and the new experiences must not be presented too rapidly.

New vocabulary is introduced to make ideas more precise and clear. The language of sets, which readily unifies ideas, is introduced and developed whenever the set language simplifies the discussion and enhances the attainment of a concept. The set concept may be used to show relationships with more familiar situations. For example, the term "set" is introduced and used for a collection of things; the terms "set," "intersection of sets," and "union of sets" are used with numbers and in geometry. You will recall the definition of an angle as a set of points. The terms "sentence" and "statement," whether used in arithmetic, algebra, or geometry, are used in precisely the same way in each application.

Goals and Processes

Close examination of the new mathematics courses for junior high school will show that, while the content and organization have been selected from the mathematical point of view, the choices are in keeping with sound learning principles. A proper setting for a new concept has been thoughtfully selected. In presenting an idea it is illustrated by concrete examples familiar to the pupil. By an appropriate arrangement of exercises, including exercises involving familiar ideas, the pupil may reach an abstract notion about the new idea. It is true that there is not just one way to do this and, therefore, the presentation must be examined and, if possible, improved. The new courses have gone through a period of try-out, which will be continued.

Mathematics for junior high school must be mathematically sound, psychologically presented, and contain information and skills for intelligent citizenship in our present and future society. High level mathematical competency is needed not only in scientific fields but also in the fields of humanities. The foreword in the School Mathematics Study Group's *Mathematics for Junior High School, Volume I,* states:

> The increasing contribution of mathematics to the culture of the modern world, as well as its importance as a vital part of scientific and humanistic education, has made it essential that the mathematics in our schools be both well selected and well taught.

The junior high school curriculum studies (and those at other levels) are the work of teams composed of mathematicians, classroom teachers, and psychologists. The mathematician supplies the mathematical ideas, the teachers the setting for teaching the pupils, and the psychologist furnishes guidelines for presentation and evaluation. This team approach is one of the most significant trends in curriculum development of this century. Team approach has long been recognized as sound but not always have financial resources been available to bring such an approach into being, certainly not on so broad a scale.

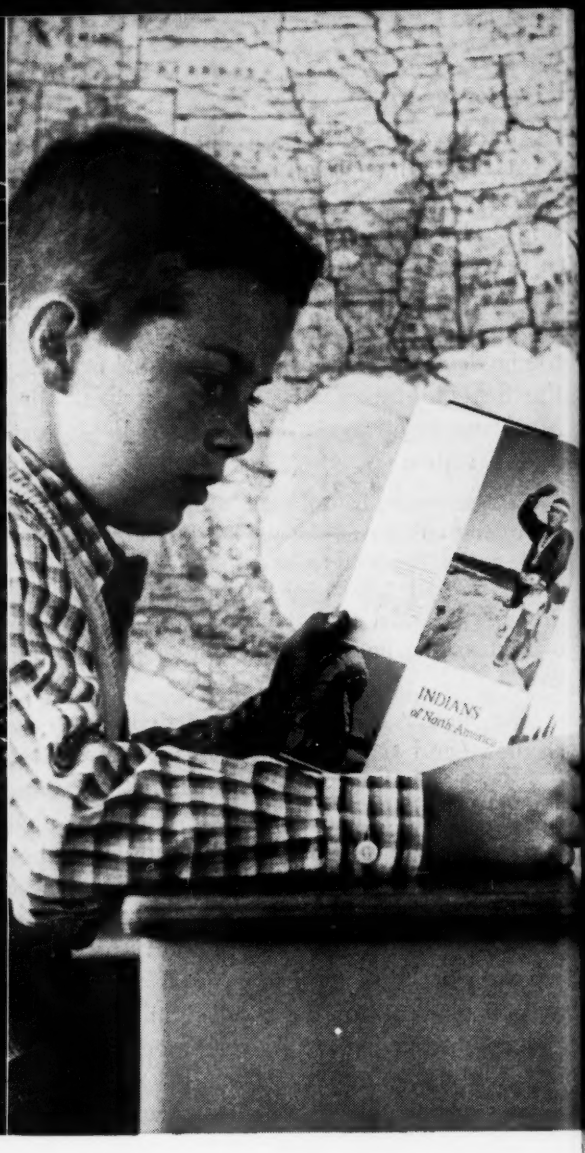
Some Evidence of Success

Examples [1] of important ideas and processes of curriculum development are selected from the courses for grades 7 and 8 of the School Mathematics Study Group, supported by the National Science Foundation, and of the University of Maryland Mathematics Project (Junior High School), supported by the Carnegie Corporation of New York. In the current school year the School Mathematics Study Group has in use by more than 100,000 students "sample" textbooks for grades 7, 9, 10, 11, and 12. These textbooks are revisions of preliminary editions which were tried out during the school year 1959-60 by more than 500 teachers. SMSG also has available a preliminary edition of a sample course for grade 8, much of which has had wide try-out as experimental units, and experimental units for grades 4, 5, and 6 which are being tried out during the current school year. The University of Maryland courses are also being widely used this year, after two years' experimental teaching. In all of the courses the mathematical approach has been used. The choices make possible application of what we know about learning.

Special reference has been made to the new mathematics for grades 7 and 8, partly because of the authors' closer association with the work at this level, but particularly because the new courses for these grades are a greater departure from traditional material. It seems clear that curriculum revision in mathematics is more greatly needed in these grades than in the others, as badly as it is also needed at other levels. In traditional mathematics for grades 7 and 8 emphasis has been on review, through drill, and motivation through the so-called social applications to budgeting, banking and insurance. In the new mathematics, review is provided in a new setting in which reasons for the "rules" of arithmetic become clear, and motivation is based on the innate curiosity of an in-

(Continued on page 189)

[1] More information on the SMSG and Maryland programs may be obtained by addressing inquiries to: School Mathematics Study Group, Drawer 2502A, Yale Station, New Haven, Connecticut; or to: University of Maryland Mathematics Project, Skinner Building, University of Maryland, College Park, Maryland.



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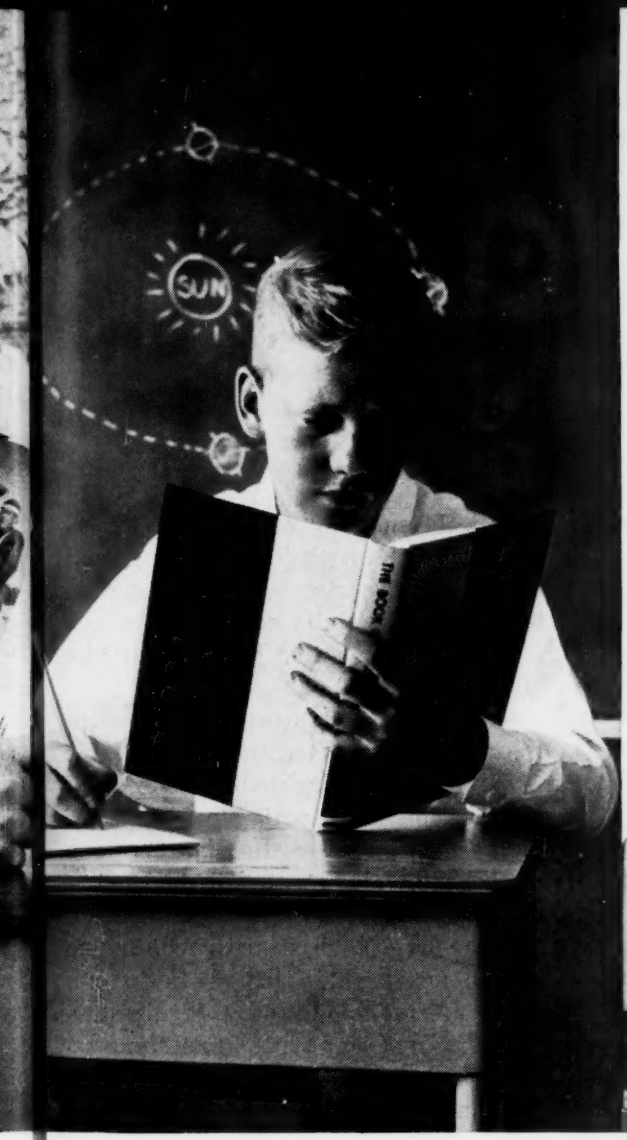

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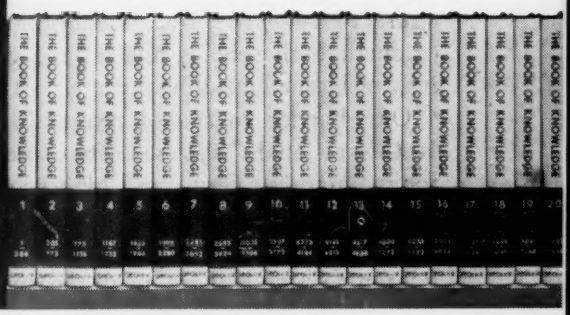

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K. C. DeGood

Profile of the Small High School

A state study relates certain factors to school size.

FOR the past many years rural educators have been calculating the cost in dollars of operating small high schools. They frequently have been frustrated in efforts to weigh the educational programs of small high schools against the offerings of larger high school units.

One barrier to school reorganization is the rationale citizens often present for maintaining very small high schools. The claim may be that the small classes of the small high schools automatically guarantee each student a full measure of individual faculty attention. Other claims may center around the high school's being the social hub of the community; if the high school is lost through district reorganization, the community will disintegrate. Occasionally, citizens draw on the human logistics of athletics; in high schools with only 40 boys the chances of any boy's making the basketball team are better than his chances in schools numbering 300 boys.

Although there is nothing sacred about bigness or smallness as such, there is fast being fashioned in much of Ohio an image or stereotype of the small high school. Presumably the staff is underpaid, lacking in graduate training, and relatively inexperienced. The image extends to include the community which is taxed to the hilt to keep the district alive.

Small high schools can have many of the positive characteristics of the larger high schools. Undoubtedly, some small high schools are superior to some large high schools. The question becomes one of probability. What are the odds against the small high school's equaling or excelling the large high school according to certain measurable indexes? If there is a distinct probability advantage resting with the large high school, then the good small high school of today is running a substantial risk of deteriorating tomorrow.

Differences Related to School Size

Recently data was collected from 103 school districts in Ohio in an effort to identify differences that may exist in high schools due to the size of the schools.[1] Although practically every district in Ohio operates one or more elementary

[1] The study was conducted under a grant from the Research Foundation of the University of Toledo and with the assistance of two Graduate Fellows, James R. Hays and Ellis Dunmyer.

school, reorganization pressures stem principally from the operation of high schools.

An examination of the 1958-59 *Educational Directory* published by the Ohio State Department of Education revealed a total of 49 high schools in the state with enrollments in the 500-700 range in grades 9-12. For the purposes of this investigation, these high schools were termed "large schools." A second group of high schools known as the "small schools" was also selected. High schools in this group included 54 high schools selected to include all areas within the state, suburban as well as rural.

Using these two groups of high schools, an attempt was made to see whether or not differences existed that were identifiable.

Before any detailed examination was undertaken certain assumptions were made:

1. High salaries tend to attract abler teachers.
2. Teachers with several years' experience tend to be superior to teachers with limited experience.
3. Teachers with graduate degrees tend to perform better than teachers without graduate degrees.
4. Districts which make substantial financial effort achieve better programs than do districts making less financial effort.

In determining whether or not a relationship existed between the size of the high schools and the salaries paid staff members, certain data were collected. A median salary of all full-time high school teachers was established in each of the 103 districts. No administrator's salary was included. The 103 median salaries were then ranked, and this ranking was divided into a top half and a bottom half and cast in a contingency table against size of school. The results showed that the median salaries paid in the large high schools clustered in the upper half of the ranking to an extent that could be attributed to chance less than once in a thousand instances.[2]

Using a similar procedure a median figure representing the total public school experience of staff members excluding administrators was calculated for each of the 103 districts. These medians were then ranked and divided into a top half and a bottom half. Again the teaching staffs of the larger high schools clustered high on the scale indicating that the median of experience in the large high schools exceeded its counterpart in the small high schools to a degree that could be attributed to chance less than once in 40 times.

Continuing with this format the faculty of each of the schools was checked to determine the number of teachers (no administrators included) who held masters degrees. Since the number of persons on the instructional staff of the 103 high schools varied markedly, a percentage of the instructional staff holding masters degrees was calculated for each school. These percentages were then ranked and divided into a top half and a bottom half. This grouping was then plotted against the size of the school. Here the big high schools employed a higher percentage of teachers with masters degrees to an extent that exceeded chance distribution 1000 to 1.

A review of these findings indicated a likelihood of a relationship existing between size of a high school and level

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[2] The statistical device employed here and in later aspects of this study was Chi-Square.

of staff salary, extent of staff experience, and percentage of staff holding masters degrees. However, when individually applied to districts, exceptions were found in all three relationships. Some small schools paid their staffs well, some had well-experienced staffs and some staffs included a high percentage of teachers with masters degrees. The question then arose, could a single small school rank high in all these relationships? Or more broadly stated, was there a relationship between school size and ranking either high or low in all three indexes?

Twenty-two of the 49 large high schools were located in the top half in each of the three rankings of the 103 high schools. The three rankings included median teachers salary, median years of teaching experience and percentage of faculty with masters degrees. One big high school ranked in the lower half in all three measures. No small high school ranked above the mid-point in all three measures but 20 of the 54 small high schools were below the mid-point in *all three* measures. Happenstance alone could account for a distribution of this type less than once in a thousand times.

In the stereotype of the small high school, there often is painted the picture of a small high school being kept alive through the heroic tax efforts of its citizens. As a test of this image, the tax rates for school operation of the districts in which the high schools were situated were ranked and the ranking was divided into a top half and a bottom half.

The results of this ranking were somewhat less conclusive. Twenty-nine large high schools and 21 small high schools were situated in districts which levied a higher tax for school operation than was the median tax rate for school operation of all 103 school districts. Although it appeared that the districts of the large high schools tended to levy more taxes for school operation than did their smaller counterparts the disparity was small enough to occur in a chance distribution once in ten times.

Tax rates tend to be more meaningful when taxable wealth per pupil is also considered. As a test of the possibility that lower taxes for school operation in smaller districts might be due to higher valuations per pupil in sparsely settled districts, the valuation per pupil was calculated for 101 of the 103 districts and ranked. No data were available on two districts. The valuations per pupil were then divided into a top half and a bottom half and plotted against school size.

Again the larger schools outnumbered the small high schools in ranking high on a taxable-wealth-per-pupil scale but the difference was not great and there was one chance in ten that no real difference existed. However, if an indication did exist, it rested in favor of the larger district possessing a greater taxable wealth per pupil.

Most important in any assessment of an educational endeavor is the quality of the educational program being offered. Regretfully, one of the most difficult things to assess is the quality of an educational program, since to measure the program it is necessary to determine the nature and extent of that program's impact on the lives of boys and girls. The limited resources of this study precluded any attempt to relate aspects of the educational program to behavioral changes in teen-age Americans. Rather, one index of program as applied to the large high schools and the small high schools was sought. That index dealt with an aspect of secondary education which public policy was currently demanding—a guidance program.

(Continued on page 182)

George C. Kyte

Supervisory Visits Locate Teachers' Needs

Planned visits can pinpoint teachers' needs.

THE supervisory visit requires more time than does any other technique of supervision. This is a finding of many research studies regarding the various supervisory functions and the proportion of time devoted to each one. How this type of supervisory visit is conducted has been well treated in the educational literature. With few exceptions, however, the purposes in using the technique have been based primarily on problems reported by teachers and other personnel. Consequently, symptoms and causes have been intermingled so that the actual needs of teachers usually have not been determined. Only carefully planned and conducted supervisory visits permit the discovery, analysis and diagnosis of specific classroom problems and needs of teachers and pupils.

One of several research studies was designed to reveal detailed information regarding actual needs located through supervisory observations. Hence the data indicate conditions to be treated by supervisory officers through individual conferences, teachers' meetings, supervisory bulletins, and demonstration lessons planned to improve teaching and learning.

The investigation is based on (a) 30 pairs of tape-recorded classroom sessions by 30 teachers respectively, (b) the tape-recorded supervisory conference between each teacher and the supervisor, the observer of the first lesson in the pair, (c) the latter's own analysis of the help given the teacher, and (d) the critical comparisons of the two classroom sessions in each pair, made by at least ten other trained supervisors. The latter specialists made their evaluations independently of each other, using accurately reproduced transcripts of the two performances. These supervisors were not informed which lesson occurred first. The sets were stapled so that at least five supervisors read the first lesson first and at least five read the second lesson first, in order to control the effect of order of exposure.

In the records are evident excellent teaching, good but improvable teaching, and serious weaknesses. The present investigation is delimited primarily to the

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various discerned weaknesses requiring supervisory attention. The items included here are not characteristic of all teachers but occur so commonly or so detrimentally that they are noteworthy.

Planning

Inadequate planning by some teachers affected adversely the classroom performances. Evidence of inadequate preplanning included hazy purposes not grasped by children, insufficient preparation of the physical environment, incomplete provision for all essential learning activities, and teacher's lack of fundamental knowledge needed in the teaching-learning activities. The other aspects of weaknesses in planning are presented under other headings because of the obviously direct reference to certain instructional defects.

Grouping

Undesirable conditions in the grouping of pupils occurred in arithmetic, reading, spelling, dramatic play, and social studies. The analyses of children's performances disclosed that individual abilities, needs and interests were not being met efficiently. The range in some groups was too extensive; bright children were wasting time and weaker ones were obtaining too little help. Some classes were divided into groups which were so much alike that they might have been combined in one group to economize effective instruction. Lack of needed flexibility in grouping also occurred. Sometimes the effect of grouping was seriously minimized by avoidable distractions caused by faulty seating arrangements and interruptions. Inadequate planning was evident in many weaknesses in grouping.

Audio-Visual Aids

Weaknesses involving audio-visual aids in areas of learning resulted from some teachers' insufficient preplanning or failure to utilize available aids. Opportunities were overlooked to strengthen learning by the use of the blackboard in teaching the Three R's especially. Reading and arithmetic charts were not obtained or prepared, were poorly designed or ineffectually used. Instructional aids included in textbooks or suggested in teachers' guides were either not used or misused. Illustrations of these weaknesses are: failure to use pictures in readers, omission of essential steps in teaching arithmetic meaningfully, and omission of the use of available maps, globes, and other concrete materials. These weaknesses handicapped pupils' clarification of concepts and relationships. Some visual aids were incorrectly prepared or poorly arranged in the classroom for effective instructional use.

Children's Learning Activities

Both teacher planning and teacher guidance included weaknesses that affected adversely the pupils' learning activities. One quite common omission was that of differentiated activities necessary to meet the specific needs of certain types of children. The most marked kind was the failure to provide for the abilities and interests of bright pupils. Another weakness was the unsatisfactory conduct of class or group discussions. They failed to arouse children's interest or were not pursued until they fixed the desired learning.

Two specific mistakes of some teachers were evident in the discussions. The correct answer given by one child was accepted as being the answer all or most

of the pupils would give. Conversely, the answer made by the group was accepted as the answer each child in it had given. These two weaknesses were especially noticeable in the teaching of reading, speech and arithmetic and occurred primarily with respect to items requiring individual mastery.

Integrative types of activities were overlooked or unskillfully used. Learning situations requiring dramatization or dramatic play were not included or were conducted ineffectually. Too commonly omitted were field trips which would have provided rich concrete experiences needed by children. Normal and natural units of work were not included or were only partially developed. For example, opportunities to correlate reading and social studies were overlooked, especially in the primary grades. The considerable reading materials and pictures on home and family in the readers were studied in relation to reading but without relating the content to social studies activities. Essential follow-up activities in the unit of work were not planned with the pupils or were inadequately planned.

Readily available out-of-school experiences for the children were not used or were misused. Common experiences in the home and community were not directly related to the vocabulary and concepts included in the children's learning activities. The failure to utilize extensively the pupils' meaningful experiences in arithmetic affected their learning. At times, also, the selection of arithmetical experiences involved inclusion of concepts and efforts at generalizations too advanced for the children's level of development. Analogous conditions were observed in the reading activities.

Teachers' ineffective questioning affected adversely children's learning. Questions improvised offhand were not thought-provoking or they served to evoke unnecessary recall of facts. Some teachers' questions interfered with the desired spontaneity of the pupils. One form of this weakness was questioning by the teacher which should have been done by the children. The natural flow of conversation was impeded or prevented.

Teachers' English Usage

The records of classroom performances disclosed some teachers' oral English requiring supervisory attention. Serious time-consuming and ineffectual speech habits were the most common ones. They included frequent repetitions or poor formulations of questions, directions and answers. Many teachers also overworked certain words, phrases or clauses so that the instructional value of these elements was minimized. Some teachers wasted considerable time by repeating habitually the pupils' answers, questions, and oral reading. These various weaknesses will be presented in detail in another article [1] and therefore are only mentioned in the present study.

A second research study includes a number of grammatical errors made by the teachers. Most common were incomplete sentence elements, repetition of words, incorrect omissions, lack of agreement between noun and verb or object, and the use of nouns and pronouns so that the intended reference was difficult to determine or was not discernible.

There are other detracting or poor usages in the English of some teachers requiring self-correction but often needing supervisory attention. The tape recordings disclosed prominently mispro-

[1] George C. Kyte. "Supervisory Visits to Classrooms Disclose Teachers' Incorrect Speech Habits." *The Educational Forum*, Vol. 25.

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nunciations such as "cause" for "because," "gonna," "wanna," "gotta," and "sorta." Similarly detected were misuses of certain modifiers, as in "awfully good," "pretty good," "terrific answer," "how come," "got time," and the not interpretive "sort of" and "or anything."

Slang terms were used by some teachers, the most commonly noted expressions being "uh huh," "huh?" and "O. K." One teacher, for example, frequently used "uh huh" in answering her pupils' questions or approving their answers: "John, 'They have white tails.' Teacher, 'Uh huh.' Jane, 'They are mostly brown.' Teacher, 'Uh huh. Tommy?' Tommy, 'Aren't they lighter brown underneath?' Teacher, 'Yes, uh huh.' . . . Mary, 'But some have big black spots.' Teacher, 'Uh huh. Yes, uh huh. Those are all right answers.'" It was not surprising to hear her pupils using "uh huh" later in the lesson. Another teacher used the extraneous "O. K." 20 times in a ten-minute period with the result that the children were also saying it frequently.

Some teachers formed the habit of interjecting "er," "ah" or "uh" very often in their questions, directions and answers. The interjection was poor classroom practice into which the teachers fell while thinking during a conversational period. Following are illustrations of this fault. "Er, why would that be a good subject?" "The knights had, er, armor made out of iron." "I want someone to, ah, take this strip of paper, ah, I've cut out." "I'll bring it over here, ah, so that you can show the class, ah, how it looks." "When you got to the, uh, store, you said, uh, uh, 'I haven't anything from the dairy.' How did that, uh, happen?" "You, uh, also should read to, er, find out what Dick said."

Class Control

In some cases of beginning teachers, inadequately trained teachers, or weak ones, the recordings uncovered causes and conditions of unsatisfactory class control and the nature of poor disciplinary measures used. The correction or elimination of various other observed conditions discussed here should contribute to improved class control. Some situations, however, were serious ones requiring specifically planned supervisory observations in order to determine the nature of assistance needed by the teacher. One teacher who used, "shush," frequently was an instance. Teachers who were ambivalent in discipline and class control were in serious difficulties. The teacher who resorted consciously or unconsciously to severe disciplining of individuals before the rest of the class needed helpful consultation in order to avoid this harmful practice.

Having determined through supervisory visits to the classroom the specific strengths and weaknesses of teachers, the supervisor is able to plan insightfully the kind of help to be given. Some needs can be met in teachers' meetings, others in individual conferences, and still others through the demonstration of better procedures. Related to any one technique may be carefully selected pertinent professional reading recommended to the teacher.

A three-way check in evaluating school practices.

Norman K. Hamilton

Providing for Individual Differences

AMERICAN elementary schools are well into a period of renewed interest and concern for the quality of education. The resulting activity has taken the form of establishing special classes, the re-establishing of so-called homogeneous groups, and emphasis on academic achievement. Sometimes schools, in their effort to meet current criticisms, are moving too rapidly without reexamining fundamental principles of sound educational practices.

Social Values as a Basis for School Practice

Philosophical and practical problems must be solved before practices which have been hastily adopted to meet current pressures can be evaluated. Schools need a set of criteria upon which to base their evaluation of practices. These criteria must be founded upon the values of the society the schools are to serve, the nature of children and how they learn, and the findings of research in the field of educational practices.

The common elements of public opinion become the values of a society. Certain of these values are of paramount importance to education. Many writers and speakers who are gaining national attention are, in the opinion of this writer, advocating school policies which are contrary to basic values held by the American people. As one reads some of the current criticisms of the schools, one might question whether or not the basic values of our culture are still dominant or whether public opinion has changed to the extent that the tenets of our democracy have been modified through a mass shift in public opinion.

Three values which have long been held by Americans are:

1. Each individual has a right to equal opportunity to develop his full potential.
2. Each individual should become a good citizen and be prepared to participate at some level in the democratic process.

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3. Each individual is of equal worth and has a right to the recognition of his worth.

The values under which schools operate can best be reexamined by testing the public opinion from which values are derived. In a recent survey of the opinions of 1500 parents in the state of Oregon on the question of individual differences, 90 percent expressed the belief that individual children who have special instructional needs should receive special opportunities, outside the regular classroom if necessary, in order to help them reach their full potential (3). This can be interpreted as an overwhelming support of the belief in the development of each individual according to his ability.

In the same survey, the parents reaffirmed the idea of the worth of each individual through their unwillingness to classify individuals as superior, exceptionally endowed, or gifted. The reasons given for this opinion were that some words, when associated with individuals, are value judgments and tend to place more worth on one category of persons than on another. On the other hand, the parents would favor giving opportunities for special interest work, advanced work, or enriched work to those pupils who through diligence or native ability are able to profit through such opportunities. The difference here is fine but fundamental. The approval is for the opportunities without classification of individuals as members or nonmembers of select groups.

The need for preparation of all individuals for efficiency as citizens is reaffirmed by the fact that the public recognizes that there should be excellence in all fields of endeavor, and that high talent should not be directed solely into one or two specialized fields at the expense of other opportunities. The public would include special opportunities in the fields of mechanics, art, creative writing, music, social leadership as well as the academic subject fields(3). This reaffirms the faith in the need for well-rounded individuals resulting from a well-rounded educational program.

Each of these expressions of opinion can be interpreted as confirming the values upon which educational philosophy is based:

1. That each individual should have a balanced school program for effective participation as a citizen in our society
2. That each individual should have an opportunity to develop to his optimum potential
3. That each individual is of equal worth
4. That each individual should have an opportunity to develop his full potential through specialized opportunities according to his needs, ability and present level of achievement.

The social values of American society are consistent with practices of flexible grouping, a balanced program of studies, and the recognition of the worth of each individual regardless of his native ability.

The American people recognize that individuals differ in their needs and abilities and that the schools must and should provide special opportunities for children who have special needs. These opportunities would be for both the slow and the advanced, the handicapped and the abundantly endowed. One group would not be served at the expense of the other, yet no school could claim to be fulfilling its obligations without recognizing and providing for individual differences.

To foster wholesome respect for each individual, the American public generally would avoid labeling children. This means that schools should help children maintain their principal identity with heterogeneous class groups. Special op-

portunities would be in addition to or in place of some activity provided for all. Children lose their identity with special groups if they are members of many groups. Some leave one group for work on a school paper; others participate in a chorus; still others may be in a remedial reading class or a science class for the gifted, but all should have a home base, the homeroom.

A significant finding in analyzing the values of the American people is that the provision for differentiated experiences adjusted to the ability of children is consistent with democratic ideals. The objectionable element in this practice is that value judgments are sometimes associated with individuals in special groups. The practice of grouping and regrouping for specific activities within and outside the regular classroom overcomes the objectionable social features of grouping and permits the schools to provide a balanced and appropriate program for each child.

Understanding How Children Learn

If schools are to continue to fulfill the American goal, they must continue to provide for all the children of all the people. They must continue to provide special training in the creative fields of art, music, creative writing, and drama as well as the regularly recognized academic fields and physical education. This type of balanced program is best suited to prepare children for maximum citizenship responsibilities and full, successful living.

What does research tell us about individual differences and how they can be met? Individual differences are the variations that exist among individuals grouped on any single measure or trait. Physical differences among individuals are often obvious. Physical limitations are accepted by most persons, and no child would be expected to perform a physical feat which he obviously is not able to perform. Differences in mental ability have often been overlooked by the public but are now beginning to be better understood.

There has been a tendency for schools to rely too heavily upon IQ as the sole measure of ability. IQ's, as measured by tests, are composites of scores of various types of performances: memory, word fluency, perception of special relationships, quantitative thinking, and various reasoning exercises(4). Identical IQ's in two individuals will not indicate identical strengths and weaknesses to do various tasks. Pupils differ one from another in any single ability, and any individual has differing abilities with respect to the various component parts which make up his aptitudes.

Trait differences refer to the variations in different abilities possessed by an individual. Therefore, grouping children on the single criterion of IQ overlooks the trait differences within an individual. IQ is only one measure of individual differences as related to ability to do school work.

The areas of interest, attitudes, motivation and drive also influence performance. Each person visualizes himself as successful or unsuccessful in various roles. The child acquires many of his self concepts through experiences in various situations. As a child acts, persons react to him. If reactions toward him are favorable, he will tend to visualize himself as successful in those situations. If the reactions toward him are generally unfavorable, he is apt to visualize himself as unsuccessful in those roles and therefore will modify his own self concepts. The total of his actions and reactions

results in his own personality judgment of himself. It is known that a child's feeling toward himself influences his achievement.

Interest is also a strong factor in achievement. Tests of interest seem to indicate that young children are interested in many things, and that as they grow older they become more selective and specialize in certain interests. Therefore, the development of interest seems to be a selective, elimination process rather than an expanding process(5). Interest is related to a person's concept of himself in terms of the various roles he plays to his own satisfaction. As an example, a child who has unsuccessful experiences in music may reject music and may not include it as one of the areas of his interest. If, on the other hand, he has successful experiences in athletic events, he may develop an interest and specialize in this field of endeavor.

Aspirations are related to the factors of self concept, interest, ability and experience. Most children have a tendency to aspire high—that is, they are aware early in life of the positions in society which hold prestige. As they grow older, toward the end of the high school career, they may become relatively more realistic in their aspirations and tend to set goals which they feel they have a chance of reaching. Children will tend to fix their occupational aspirations according to their background(2). Thus, two children of equal ability will aspire at different levels. Motivations and aspirations are closely associated with success. Given a minimum ability, a child of lesser ability who is highly motivated often achieves more than a child of higher endowment who is not highly motivated.

Understanding the nature of children and how they learn includes the knowledge that children differ one from another in ability, in motivation, in self understanding, and in trait variability. Each child brings with him to each task a set of attitudes and drives. As these tasks are performed, he modifies his attitudes and motives, and adds to his fund of skills and knowledge. This is part of the learning process.

Schools must organize their programs to capitalize on the curiosity of young children and their natural drives for success. Children come to school with many interests. These interests should be kept alive by providing broad opportunities for their expression through reading, artistic expression, and achievement. Children should be given as many opportunities as possible to develop wholesome self-respect through chances to succeed. As children mature, they will naturally withdraw their interest from some fields and refine and develop their interests in other fields(5). Good schools will permit children to keep many of their interests alive and to develop a variety of these interests.

Children who come from limited environments have had little opportunity to visualize themselves in certain roles. They need broadening experiences which will provide them with new horizons.

Children who have high IQ's tend to excel in many subjects. On the other hand, trait variability within the individual should be recognized. Some children of moderate general ability as measured by an IQ test, but who possess keen interest and diligent work habits, excel in fields beyond their normal expectations. This is all to the good. Schools should not consider these pupils as "overachievers," since their motivation and attitudes are part of their composite ability to achieve.

The total educational experience will assist each child to assess his own

strengths and weaknesses and help him to plan his own educational goals in later years. Thus each child can develop a wholesome self concept in harmony with his ability. This can be partially achieved through opportunities to participate with many different groups of children of varied abilities.

A child who is always at the "top of his class" in academic work may find that he is less able in art expression, or only average in a special class for advanced science or math instruction. Another child who receives below average marks in academic subjects may excel in art expression. Wholesome self concepts are developed through experiences which challenge but offer opportunity for success.

Research in Grouping Practices

Methods and procedures should be developed or refined to help teachers improve their observation and judgment in identifying the total capabilities of children. Principals can help their teachers in looking beyond obvious differences among children to other related factors which also make up the total of each child's capacities. They will help teachers make opportunities and experiences available so that each child will develop and maintain a wholesome personality judgment in keeping with his potential.

Research into the various methods of grouping—homogeneous vs. heterogeneous—has not produced conclusive results. The variables are numerous and hard to control. Research which reports favorable results for one method over the other usually is based on inadequate measures of achievement or is accompanied by inadequate controls of variables. It is generally concluded, however, that it is never possible by any method of grouping to have a completely homogeneous group of pupils even for a single activity. By grouping, the range of abilities can be narrowed. Research indicates that grouping for one activity will reduce heterogeneity in another activity only about 20 percent(2). To be effective grouping must be for a special purpose.

Children will fall into clusters in their needs for instruction in certain skills in arithmetic; they will fall into other clusters for art. Indeed, some children vary so far from the norms that they seem seldom to be like other children in their instructional needs, yet each child has a need to associate with others of his own age. A balance is needed between grouping for special activities and provision for association with others at many ability levels.

Flexible grouping can probably be best achieved for young children, those in kindergarten through grade six, in the self-contained classroom. Special opportunities in the talent fields or for remedial work may be provided outside the regular classroom on a part-time basis by special teachers.

Teaching is particularly adaptable to flexible grouping and individualized instruction when a major portion of the pupil's learning experiences is organized around certain large themes or problems. Such an approach promotes use of a variety of materials, work in small groups, individual work, and total class projects with integration of a variety of subjects and activities. At the upper elementary level, such an approach is particularly adaptable in social studies, language arts, health, and science. Differentiated experiences may then be provided in mathematics, science, and interest fields of art, music, industrial arts, and homemaking. Less formal school activities such as the school paper, clubs

and games will provide many opportunities for pupils with special interests and abilities.

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Small High School

(Continued from page 172)

Forty-eight of the 49 large high schools claimed to have in operation a guidance program whereas 34 of the 54 small schools claimed such a program. However, when a guidance program was defined as requiring that at least one staff member be assigned at least one period *per week* to work on the program, 36 large high schools and 10 small high schools met the test. When a guidance program was defined as requiring that at least one staff member be assigned at least one period *per day* to the program and recognizing that the staff member has no formal training in guidance, 19 large high schools and five small high schools could claim the existence of a program. When a guidance program was defined as requiring the assignment of at least one period per day of a staff member who possessed some formal training in guidance, 17 large high schools and five small high schools could report such a program.

It is obvious that the large high schools could not claim a monopoly on guidance programs. Nevertheless, a distinct advantage seemed to lie with the large high school in attempts to give the guidance process some structure through a guidance program.

In summary, it is obvious that no profile can be constructed to fit all large high schools or all small high schools. However, after studying every Ohio high school listing 500-700 pupils in grades 9-12 and comparing certain educational aspects of those districts with an approximately equal number of systematically selected districts with grades 9-12 enrollments of less than 200, certain distinctions tend to appear.

In small high schools, according to the study, teachers receive lower salaries, have fewer years of experience and are less likely to hold graduate degrees when compared to their fellow staff members who serve large high schools.

Taxable wealth per pupil tends to be a little less in districts with small high schools when compared with districts containing large high schools. If the school tax rate for operation is an index of a community's educational effort the district of the small high school appears to make a little less effort than the district which includes a larger high school unit.

Finally, in at least one area of program, namely guidance, the small high school has more difficulty freeing staff for guidance activities and is less likely to attract a qualified guidance person.

The Importance of People

Column Editor: Prudence Bostwick
Contributor: Martha Brockman

Wanted: Messengers!

Swifter than horses
Fleeter than men
To carry my messages
A Million Times Ten.

Earth King[1]

ACCORDING to legend, this was the first skywriting to appear in the heavens above men. The Earth King was in dire need of reliable messengers to carry words of hope and reassurance to children of the North who were suffering from winter cold and who feared that spring would not come.

The Four Winds responded immediately to his call. The Earth King made clear to them that their mission was to visit the children of the Far North and by a gentle stirring of the air to let them know that winter's icy grip upon their land was beginning to weaken. However, he neglected to brief them on cooperative action. Each was eager to serve well, to gain prestige, to achieve honor in the eyes of the King. East Wind, West Wind, North Wind, South Wind—all rushed forward to carry the promise of spring. Their headlong rush, as is well known, created chaos, confusion, death and destruction. The Earth King finally cornered them and lectured them severely on the perils of pride and impetuous haste.

Once again he advertised across the heavens for messengers. Swifter than horses, fleeter than men came the swallows. They promised faithfully to perform their discreet role as harbingers of spring. No talking about the good days ahead; no false hopes were to be given to children to mislead them into rashness. Off they flew, full of fine intentions.

In due time the tiny do-gooders reached their destination. Such shock as they experienced when they saw the misery, the despair, and the pinched faces of children starved for warmth, sunshine and food! Promptly the swallows forgot caution, prudence, and obedience to the Earth King. They began to chatter quietly among themselves about the good days to come. As the twittering grew more joyous, the secret was out. Spring was coming! The children rushed to their gardens, uncovered the tender plants resting comfortably under a bed

[1] The story of the Earth King and his messengers was used by the writer more than twenty years ago in her work with primary children. She has no recollection of the author or the publisher of the "legend" which for purposes of this column she has put into her own words. She is reasonably certain that the verse which introduces the story is in the original. For use of this and of the story itself she wishes to acknowledge her indebtedness.

EDITOR'S NOTE: The original story may have been written by Frank R. Stockton, though a search of his writings has not enabled us to find this particular story.

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of leaves and snow. Suddenly without warning came an icy blast to blacken every seedling.

This betrayal of confidence shattered the Earth King's hope of finding messengers of integrity. As he was sinking into despondency, he was roused by an insistent *z-z-z-z-z-z-z,* translated freely, "We have come to serve you." He could see nothing, he could touch nothing; but the message kept coming through, "We have come to serve you." It took a long time for the King to recognize the strange voice of his new messengers, the persistent buzzing of electrons. Suddenly the Earth King realized that here were servants who "swifter than horses, fleeter than men"—would carry his message clearly and purely with no need to gain glory for themselves, no need to betray the King's words with undisciplined sentiment. So it was that in good time and with unparalleled accuracy, the Earth King spoke words of hope and reassurance to the children of the North.

A Bright New Star

Of late years the Earth King has again been concerned for the welfare of the children of men. As he considers calling once more his tireless servants, the electrons, his eye catches a bright new star beeping its way across the world. Here is a servant worthy of the Earth King's hire to bear again messages of hope and reassurance to the children of the North, and not to these only, but to the children of the whole world who are in danger from a different kind of cold—the cold of exploitation and manipulation for ends not their own. He sees a technological society imposing pressures, creating anxieties, starving children of their right to childhood happiness. He is aware that the very young today may be as hungry

for freedom to grow and learn at their own rate as were the children long ago of the Far North for food and warmth and the promise of spring. He regrets the hasty decisions of adults who would expose young children to the strange and foreign symbols of reading, of arithmetic and of foreign languages before they have had an opportunity to experience a wholesome rhythm of living.

But what good will it do for the Earth King to send messages of hope to children in these circumstances? He cannot assure them that the cold will pass. This cold is not subject to the natural law which brings the spring back with the returning sun. To change this threatening atmosphere, the King must influence the minds and hearts of men. He looks over the earth to discover who best among them can keep this frost from deepening and who has the power to redirect the forces that are lessening the chances for children to grow freely. Slowly, carefully he chooses the recipients of his message: those teachers of the world whose thoughts are clear, whose faith is strong, and who have the courage to stand together for what they know to be true about growing and learning.

Suddenly the trackers of Courier 1B are startled to hear a new message coming through. The code for quantitative data no longer applies; clearly the words are made for a different audience:

O, Teachers of the world, do not retreat before the pressures of the day:

Believe in the right of children to enjoy their childhood

Believe that a rich and strong society grows from the diverse talents of individuals

Believe that children must understand their own problems and their own immediate life before they can reach out to understand the problems and lives of others

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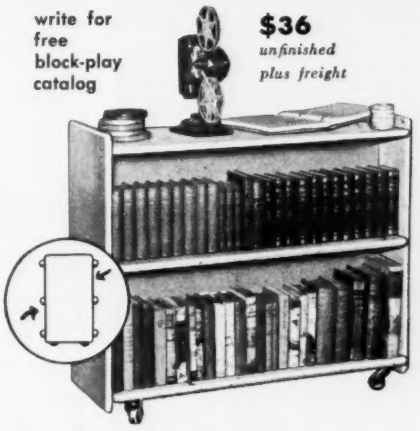

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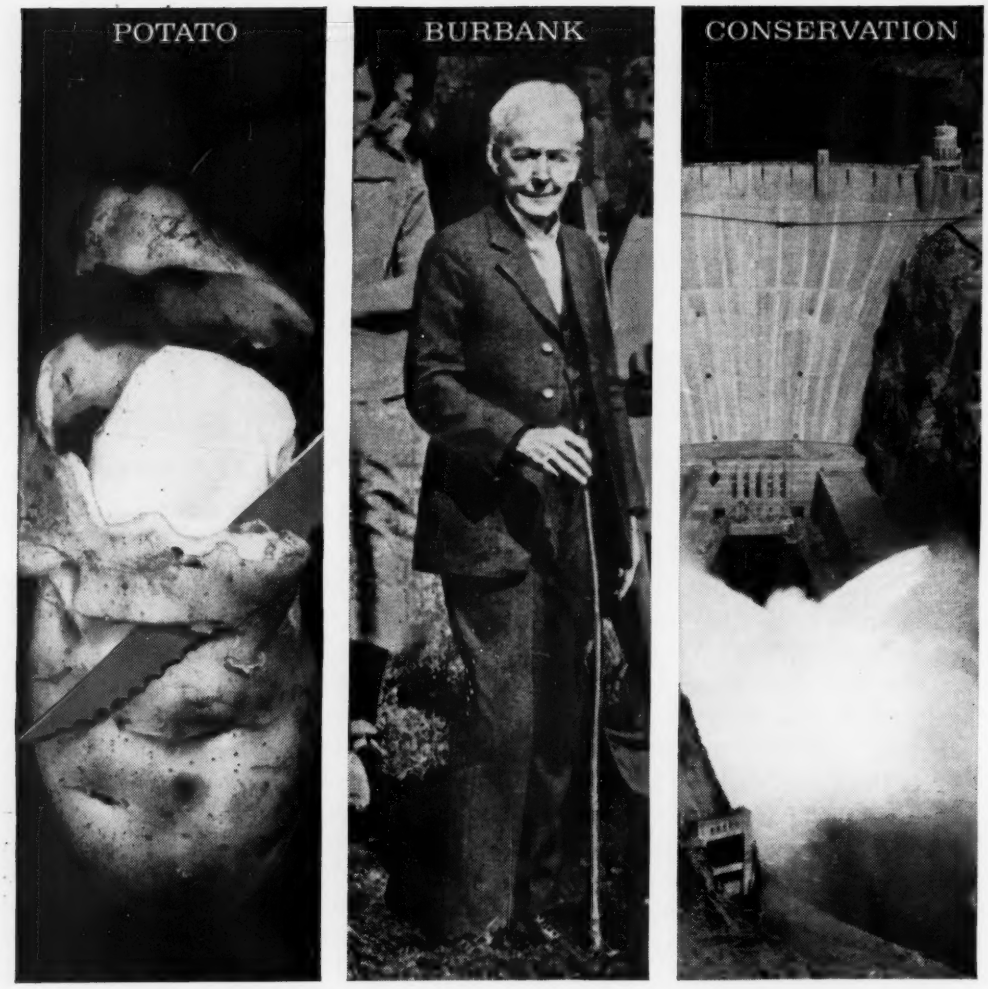
Believe that children need guidance from teachers who respect their uniqueness

Believe that children grow best in a climate that provides equally for support, affection, and intellectual stimulation

Believe that a child's school ". . . should begin in joy and end in wisdom. . . . Certain it is that the way of wisdom is the way of happiness." [2]

—MARTHA BROCKMAN, *Associate Professor of Education, San Fernando Valley State College, Northridge, California.*

[2] Ruby H. Warner. *The Child and His Elementary School World.* Englewood Cliffs, New Jersey: Prentice-Hall, Inc. © 1957. p. 126.



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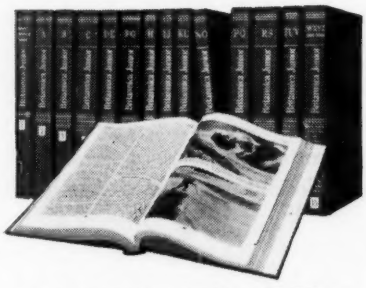

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Ideas into Action

Contributor: Victor B. Lawhead

Guidelines for Evaluating Core Programs

CORE programs in general education have sought consistently to achieve a wider range of educational values than is normally ascribed to a curriculum characterized by a sharp separation of disciplines. In clear contrast to such an approach, some of the current proposals for the secondary schools seem to reflect quantitative requirements in class periods and academic years in special subjects. Such proposals remind us of a continuing need for emphasizing the broad behavioral goals of general education that are identified with core programs of the high school.

Critical Areas of Behavioral Competence

Recognizing this challenge, the Commission on Core Teaching of the Association for Supervision and Curriculum Development is currently engaged in a study designed to encourage evaluation in several areas of behavioral competence held significant as goals for general education. In designating its immediate role in the study, the Commission has assumed the task of preparing a series of guidelines to assist persons interested in evaluation of this kind. Although specific direction of activities has focused on the evaluative aspects of the problem, the scope of the current study could be interpreted to serve the additional ends of stimulating program development, experimentation and theorizing about curriculum organization.

The ultimate purpose of the Commission's study is to help determine the extent to which core programs are achieving four of the major goals implicit in general education.

Specifically, the Commission is asking: How effective are core programs in . . .

. . . developing skills and attitudes involved in *critical thinking*

. . . helping students develop consistent *value systems*

. . . establishing skills and understandings for *social living*, and

. . . fostering the fullest development of students' *personalities*?

In this effort, Commission members hope to find what teaching-learning processes, resources, and organizing elements in the curriculum contribute most to achieving the goals under study.

Steps taken by the Commission to arrive at a statement of proposed guide lines have included:

1. Identification of four critical areas of learning of high priority in a core situation

2. Analysis of these areas in terms of descriptive behaviors and specific assumptions related to curriculum experiences provided in the core

3. Examination of existing research in education for cues to profitable directions for study.

The current stage of progress places its members at the point of formulating general and specific designs for assessing the core curriculum in respect to the selected areas of competence. Explorations in that direction have led to tentative hypothesizing about such programs, an example of which is offered in the area of value acquisition.

Toward Consistent Value Patterns

One of the provocative avenues of studying the effectiveness of schools at all levels today has been the research on student values. The Commission's interest in the problem centers particularly on finding ways to evaluate core situations as to their potential for helping students develop consistent value patterns.

Current research on the problem suggests at least two major processes by which a student acquires his values. Psychologists support the theory that the most significant process for acquiring values is that of *identification* with a personality model who reflects certain values. For the student this model may be the teacher, a popular hero, a parent, or a member of his peer group. A second process, described by Louis Raths of New York University, is that of *valuing*; that is, an individual achieves his values through the experiences of discriminating in the face of choices, through prizing, rejecting, and clarifying.

Working from this conceptual framework, the Commission has hypothesized that students develop more consistent value patterns in classes (a) where there are increased possibilities for identifying with a teacher representing such consistency, or (b) where they have in-

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creased opportunities for engaging in value clarification. In making an application to core programs one might inquire whether or not the longer block of time with a given teacher, the broader scope of problems, and the situation of interaction or of establishing relationships between or among fields of knowledge do contribute to greater *identification* or to increased *valuing* by the student.

Within these broad characteristics of a core program the investigator might locate a range of experimental situations which would offer useful comparisons. For example, an interesting comparison could be made between those programs where the scope is defined rather narrowly by the fusion of language arts and social studies and those incorporating problem areas of wider interdisciplinary relevance. Furthermore, it would be possible to study the significance of the extended block of time for instructional improvement.

While focusing its attention on the four areas mentioned, the Commission assumes that such programs will be evaluated continually along more traditional lines, that is, on their effectiveness in helping adolescents achieve competence in subject matter. Omission of such goals in the current study is premised on a belief that sufficient evidence has already been collected on this concern by numerous investigators. Reviews of recent research involving comparative studies of core and departmentalized programs of general education indicate rather clearly that the more experimental programs are quite satisfactory in this respect. In summarizing pertinent research, Alberty concluded that "few significant differences in student achievement as measured by objective tests have been found between students in core programs and those in other types of curricular organizations." [1]

Most studies suggest that the comparative advantages of a core program over more fragmented approaches are seen primarily in the realization of the behavioral goals of general education. The Commission hopes to mark out more distinctly the guide lines for evaluating core programs in these respects.

—VICTOR B. LAWHEAD, *Assistant Dean, Ball State Teachers College, Muncie, Indiana; and Chairman, ASCD Commission on Core Teaching*

[1] Harold Alberty. "Evaluation of Core Programs." *Encyclopedia of Educational Research*, Third Edition. New York: The Macmillan Company, 1960. p. 339.

New Mathematics

(Continued from page 167)

dividual about organizational patterns and the joy of understanding.

Testing of students who have completed the new courses shows that the students score quite satisfactorily on standardized tests of computation and reasoning based on traditional materials. Reports of teachers hold almost unanimously that the interest of students in the new mathematics is much greater than in the old. Too, it should not be interpreted that "new" neglects the social applications. The "social" is interpreted more broadly as, for example, in the introduction to probability and also the many more applications in the sciences.

The SMSG and Maryland 7th and 8th grade courses were written for all students in these grades. Experience with these courses to date seems to show that the same basic content and organization are appropriate for all ability and interest levels, when an appropriate adjustment is made so that those of lower ability and interest can cover the material more slowly.

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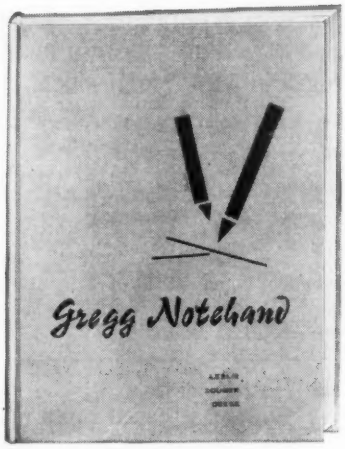

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Curriculum Developments

Column Editor: Arthur Hoppe

Junior High School Years

Many persons have had opportunities to learn the impressions, judgments and suggestions of James Bryant Conant concerning the American junior high school. Two important meetings served as settings for his reporting on this topic. These were the AASA meeting in Atlantic City and the NASSP convention in Portland, both in the current year. A final report has now been released.[1] The new study is a natural sequel to his investigation of the American high school.

Dr. Conant and his research team visited about 125 schools in 60 communities in 17 states. They also received 300 questionnaires from 200 communities in 30 states. Great variations in conditions and practices were evident: with respect to curricular offerings, time schedules, classification of students, reading abilities, guidance practices, and the relations of homes to the junior high school. Many will recall that Dr. Conant, at the NASSP convention, made tentative statements endorsing such matters as: departmentalization of the eighth grade, with specific subject requirements for all in grades 7 and 8, and with pupils grouped according to ability; special attention to the development of reading, science, and such extraclass activities as are educationally valuable; libraries and guidance services sufficient to their great tasks, and homework appropriate to the field and to the pupil.

A comparison of Dr. Conant's final conclusions and recommendations with those he delivered tentatively in Portland should intrigue particularly those students of curriculum most concerned with the junior high school. Here is an area of great concern to public and professional persons alike, an area of enormous opportunity and challenge.

Block-Time Programs in New Jersey

The Division of Curriculum and Instruction of the New Jersey State Department of Education investigated block-time and core-type programs in the New Jersey secondary schools.[2] Questionnaires were sent to all junior and six-year high schools in the state. Block-time or core-type classes were reported by 51 junior high schools (56 percent) and 15 six-year high schools (42 percent): a combination of 66 schools or 51 percent of the total. These data lend much encouragement to those persons who value highly the general education of second-

[1] James Bryant Conant. *Recommendations for Education in the Junior High School Years: A Memorandum to School Boards.* Princeton, New Jersey: Educational Testing Service, October 1960. 48 p. 50 cents.

[2] See: *The Secondary School Bulletin.* Trenton, New Jersey: State Department of Education, March 1960.

ary school students. These facts are noteworthy as school people face widespread pressures for more specialized work in such areas as science, mathematics and language.

In relation to core-type or block-time classes, the New Jersey situation reflects in various ways the national picture. A large majority of such classes appeared in the seventh and eighth grades and a few in the ninth. The most popular subject combinations were language arts and social studies, usually for a block of two periods. The most troublesome obstacles related to the securing of adequately prepared teachers or to the necessary manipulation of the class schedule. School principals cited many advantages of this type of curriculum organization, such as:

Teachers get to know pupils better.
Guidance work is much facilitated.
Individual differences are better served.
Pupils are more secure.
Cooperative and flexible planning are more easily achieved.
Usage of teacher and pupil time is more efficient.
Wider applications of knowledge and skills are possible.
Better opportunities are available for cooperative evaluation.

One-Teacher Schools

Widespread concern has been expressed for reasonable size in school corporations. Some readers, therefore, may be surprised to learn that the United States had nearly 24,000 one-teacher schools as recently as last year.[3] The total enrollment for these schools was nearly 400,000 pupils: this involved 1.1 percent of all school children, and 1.8 percent of all teachers. This is an extreme contrast from the situation of 40 years ago. Then there were 196,000 one-teacher schools, staffed by 31 percent of all teachers and enrolling 25 percent (five million) of all school pupils.

This report of a recent survey by the NEA Research Division attempts to clarify many popular misconceptions about the one-teacher school. The report presents many data describing the nature and conditions of the teachers in such schools. These schools are not staffed with young unmarried women who have no college background; rather, the teachers are typically 45 years old, married, have two children of their own, two years of college or more, and at least ten years of teaching experience. Admitting that the one-teacher school may have serious limitations, the statistics of this survey support the needed concern for practical improvements in the personnel and educational programs they present.

The Golden Conference

The nature and the concerns of children and youth are generally recognized to be of profound importance to curriculum workers. A new wealth of information in this area is being issued as a result of the Golden Anniversary White House Conference on Children and Youth.[4] An album of LP records includes major addresses by President Eisenhower, Secretary Arthur Flemming, and ten authorities in such areas as family, delinquency, values, education and adolescence. Several publications offer the complete conference proceedings as well as separate digests, summaries of reports, and special papers.

[3] See *NEA Research Bulletin* 38: 3-14, February 1960.

[4] White House Conference on Children and Youth, Publication Division, 330 Independence Avenue, S.W., Washington 25, D. C.

Several states have planned action to implement the recommendations of the White House Conference. In November Hawaii and Oregon held State Conferences on Children and Youth; Maryland, Massachusetts, Illinois, New Jersey and South Dakota have organized appropriate committees or commissions to carry on needed activities in this vital area.

Bulletins

Your Science Fair, An Opportunity for Youth. Arden F. Welte, James Dimond and Alfred Friedl. Minneapolis: Burgess Publishing Company, 1959. 103 p. (Price not indicated.)

This is a very readable, well organized, profusely illustrated "Guidebook to Successful Science Fairs." It has four parts: the first two dealing with the "why" and the "what" of science fairs, the third with an elaborate description of the "how," and the fourth with many samples of projects and reports considered to be outstanding. Science fairs are held at the local, regional, state and national levels. With the current high interest in science and the increasing number of science fair participants, this guide should prove to be particularly valuable to persons who have responsibilities in this area.

Michigan Department of Public Instruction. *The Status of Block-Time Programs in Michigan Secondary Schools.* Bulletin No. 426. Lansing: the Department, 1960. 36 p.

Three years ago, State Superintendent Lynn M. Bartlett appointed a Committee on Core and General Education, numbering 24 persons and chosen from public school and college personnel. This committee conducted a study that is reported in this bulletin. It surveyed 2,600 school districts, contacting superintendents, and found that 536 had secondary schools and 229 (46 percent) had block-time programs. Within these districts, 298 schools had block-time classes, and 46 percent (140) of the schools were strictly junior high, while 54 percent encompassed four other patterns of school organization. Nearly 1,600 teachers were involved in these classes, more than 1,000 of them in junior high schools. The report indicates that these data suggest a doubling in the number of schools offering such classes from 1953 to 1957.

The report includes separate data collected from principals and from teachers involved in block-time programs. Rather wide efforts were made to orient faculty members to core, but very few to orient students or public. Nearly half the schools had staff planning one year or more *before* initiating the program. Opposition to block-time programs ap-

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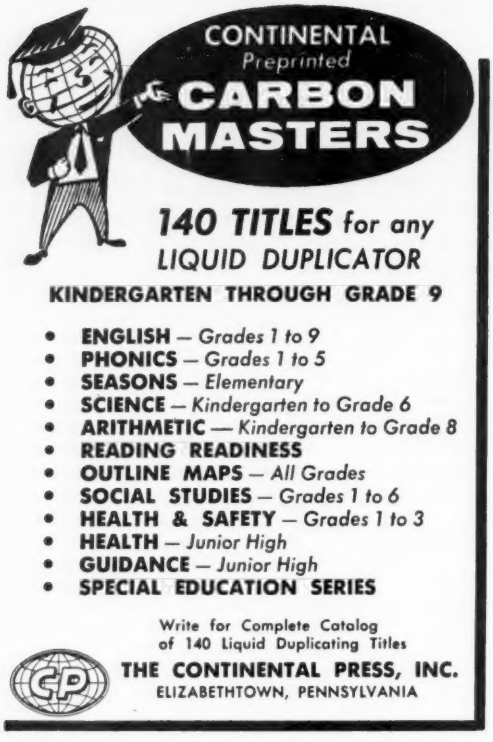
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peared in only one-third of the schools; the great majority of faculty and administrators reported favorably. The major obstacles were inadequately prepared teachers, scheduling problems, materials and time.

Michigan followed the national pattern in other facets of core programs also. Most such programs occurred in the seventh and eighth grades; few in the ninth or higher. The great majority (70 percent) of programs combined English and social studies. Fifty percent of the teachers had from three to ten or more years' experience in block-time classes.

New York City Board of Education. *Operation New York,* Report of the Bureau of Curriculum Research, Curriculum Center. New York: the Board, 1960. 117 p. ($1.00.)

A group of educators set out to do something that would help teachers utilize better the many resources in the natural environment of the City of New York. What they have produced is a research report well worthy of note. William H. Bristow, Director of the Bureau of Curriculum Research, indicates that the report suggests ways in which rocks, water, soil, plants and animals may be used to provide meaningful and enjoyable experiences for boys and girls; that such a report can be a guide to many interesting earth forms. Attention is drawn to the immediate locale of the school, including excavations and even sidewalks and curbs. The forces of nature at work are also emphasized: for example, erosion in a vacant lot, or "flood areas" following a storm, or the decay of leaves into soil. Pupils are encouraged to study the interrelationships of all living things with their physical environments.

This research dispels completely the notion that "the City" has little to offer for environmental study save concrete and steel. Since there are literally thousands of "little environments" to be found within the City, the publication of this report is meant to stimulate many schools to carry out similar research to enrich the curriculum for their pupils. The New York group recognizes the potential of such studies as this for promoting important learnings in the field of conservation. The group developed this model with unique concern for scholarship, for participation in and grasp of procedures of production, for usefulness of the product, and for a high quality of learning experiences.

This report will be particularly suggestive to science teachers in intermediate or junior high grades in large city schools.

—Arthur Hoppe, *Associate Professor of Education, Indiana University, Bloomington.*

Significant Books

Column Editor:
Elizabeth Z. Howard

Contributors:
Robert J. Stark
C. Lewis Martin
Robert F. Carbone
Stuart A. Anderson

How to Live Through Junior High School. ***Eric W. Johnson.*** *Philadelphia: J. B. Lippincott Company, 1959.*

This book is a nontechnical, practical guide to understanding and working with the adolescent. While the author directed the discussion toward parents, teachers and school administrators may also find much of value in the book.

The author draws upon his extensive experience with the adolescent and his parents, and upon the reactions to questions asked of youngsters, to provide the ingredients for the book. He skillfully mixes these with humor to provide practical advice.

The reader will find the book humorous. At the same time, however, it may well increase his understanding of that perplexing individual—the junior high school pupil.

—Reviewed by ROBERT J. STARK, *Director of Secondary Schools, Grand Rapids, Michigan.*

The Exceptional Child, A Book of Readings. ***James F. Magary and John R. Eichorn.*** *New York: Holt, Rinehart and Winston, Inc., 1960. 562 p.*

Magary and Eichorn have sifted and sorted, edited and coordinated a large number (71 to be exact) of writings by specialists in education, psychology, social work, rehabilitation and medicine into an excellent anthology concerned with helping the reader better to understand children who are exceptional. The editors emphasize by their discriminating selections that "it is the *individuality* of each child who is exceptional which requires stress." The volume is truly concerned with the "*child* who has a handicap" rather than the "*handicapped* child."

This volume has much value for teachers and students. It is an efficient, time-saving way of reading original selections by outstanding specialists from the various fields related to the education of exceptional children.

Important trends or views in the education, rehabilitation and psychology of exceptional children are presented. Teachers and other workers in the special education field will be helped to a better understanding of the exceptional child, but will also be reminded that the child with a handicap is first of all a *child.* The articles are succinctly understandable, and interestingly worded. The undergraduate student and the lay citizen will find many articles of interest in this volume.

An ingenious correlation chart on the inside cover shows the relation of readings in the volume to a number of general texts on the psychology and education of exceptional children. These texts, together with the book here reviewed, would form an excellent nucleus for a

To be released January 8th

Balance in the Curriculum

ASCD 1961 Yearbook

208 p. **$4.00**

special-education library in the local public school system, as well as within the teacher preparing institution.

The articles in the anthology are coordinated so that the reader is taken from one selection to the next as smoothly as in a modern novel. The articles range from an interesting discussion of the "Exceptional Child in Contemporary Society," to the "Child with Mental Retardation," and include children with neurological, orthopedic, visual, communication, social-emotional, and/or cultural handicaps. Also included are articles about children with handicapping medical conditions, children who are educationally retarded and children who are gifted. The list of authors reads like a combination of headliners who have highlighted many programs at the Council for Exceptional Children conferences during the past decade.

For an overview of the total field of special education, or a practical compendium of good articles regarding exceptional children, you should own this book. If you are a teacher or a student, this volume can improve your understanding of all children. It belongs in your library, if you are to have a child, to know a child, to teach a child, or to understand a child.

—*Reviewed by* C. LEWIS MARTIN, *Director, LaGrange Area, Department of Special Education, LaGrange, Illinois.*

Test Construction: Development and Interpretation of Achievement Tests. ***Dorothy Adkins Wood.*** *Columbus, Ohio: Charles E. Merrill Books, Inc., 1960. 125 p.*

What does a raw score of 62 on an hour quiz in a history course mean? How should such a number be translated into a letter grade? Is the true-false form likely to be as good as the multiple-choice? What are the arguments against the use of optional items? How can the scoring of objective tests be expedited?

These and other questions provide the framework for this "brief, straightforward, and understandable treatment of measurement techniques." Following her own advice to test makers regarding economy in the use of language, the author presents an exceptionally concise statement on the planning, construction, and statistical treatment of evaluation instruments.

Early chapters devoted to the general nature of achievement tests, principles of measurement, and objective tests make this little book a valuable resource to test constructors at all educational levels. As the author rightfully points out, there is a "significant lag in the application of basic principles of psychological measurement" by elementary, secondary, and college teachers. These principles and the techniques for applying them are clearly presented here. Illustrative material on objective test items found in the appendixes provides the reader with an additional resource.

The chapters on statistical treatment of test scores and on item analysis may severely tax the average reader's comprehension skills, largely because of the author's sophistication in quantitative terminology. The final chapter on essay testing lacks the punch and conciseness

of the earlier attention to objective testing. Otherwise, the chapter is highly readable.

The fact that this book does not move the prospective test maker much beyond the level of measuring recall and recognition in the cognitive realm may be seen as a limitation. However, the testing of higher mental processes demands a firm grounding in the sound principles of evaluation that are examined here. For that reason, this text is highly recommended to the teacher (and the professor) who has begun "to take seriously his responsibility for appraising the progress of students." It makes clear that teachers (and professors) who dash off a 100-item final exam in an evening's work are hardly meeting this responsibility.

—*Reviewed by* ROBERT F. CARBONE, *Instructor in Education, University of Chicago, Chicago, Illinois.*

The Cost of a Schoolhouse. *A Report from Educational Facilities Laboratories, Inc., New York: the Laboratories, 477 Madison Avenue, 1960. 144 pages.*

School board members, administrators, teachers, architects, college professors in teacher education, and community leaders will find *The Cost of a Schoolhouse* an invaluable guide in planning, building, and financing economies. This book is based on the results of a year-long study by the EFL staff with the assistance of leading architects, educators, financial consultants, school planners and others. It was prepared "to assist school board members in coming to a better understanding of some of the elements of school building costs and to help them in asking the kinds of questions which make it possible to secure more efficient buildings with economy."

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This publication contains many specific suggestions for realizing substantial economies such as the following: (a) adopt and put into use a standard module; (b) develop systemwide planning; (c) determine the educational program; (d) choose a good architect. The "21 School Building Economies," serve as excellent guidelines in making value judgments about real economy. Nine concrete suggestions on how "To Get the Most for Your Money," should help in making wise decisions on bonds.

The Cost of a Schoolhouse discusses the various kinds of schools a community can build. It outlines: the best contemporary thinking on program, design and construction; how to analyze and compare school costs; how to save money through wise employment of financial resources; long-range planning of school needs and the purchase of school sites; and, future trends in school design and construction. In addition, the study traces the evolution of the American schoolhouse and reports on trends in school building in other lands. School boards will find this report especially useful as a guide to pinpoint for their voters exactly how their school building dollar will be spent, and why their proposed school may cost more or less than a similar school built recently in a neighboring community.

The last chapter suggests that the school built today should anticipate accommodating tomorrow's methods and content. Elementary and high school curriculum planners should find this chapter of particular interest. The EFL publication concludes with 17 observations, suggestions and warnings for those who will be responsible for the school buildings of tomorrow.

—*Reviewed by* STUART A. ANDERSON, *Assistant Superintendent, Niles Township Community High Schools, Skokie, Illinois.*

How the Junior High School Came To Be

(Continued from page 147)

tors was to the growth and development of the junior high school.

In summary, many factors worked together to cause the inauguration and early success of the crusade to reorganize secondary education. The original impetus for reorganization came from the colleges and was concerned with economy of time and with college preparation. Discussions about reorganization then began to broaden their base. Proposals for reorganization became linked with other school problems, such as the high rate of elimination and retardation. From psychology came further justification. The culture provided fertile soil for the seeds of reorganization whether planted by college presidents, by public school administrators, by psychologists, or by professional educators. So the movement to reorganize secondary education, coming at a propitious time, prospered.

The junior high school may not have been all that many hoped it would be. It may never have proved itself on some counts, yet it has achieved marked success in its relatively brief history. Many new educational practices and ideas have been tested in the junior high school. More experimentation is in the offing, as glimpses of the future are beginning to come into clearer focus. The junior high school story is then an unfinished one; but its success to date augurs well for the future.

From the Editor

Robert R. Leeper

An invitation. Each December we in the editorial office turn systematically to the total membership for counsel and help. We need your assistance in planning future issues of the journal and future yearbooks and booklets. If you are a member, you will receive a letter of invitation that is addressed to the entire membership of the Association. In this letter we ask you to give special thought to one or two areas of concern or interest that you believe should be reflected in the journal or some other ASCD publication. Your ideas and comments, briefly stated, should then be mailed to this office.

Your reply will be included in the findings of our annual comprehensive survey. Results of this survey are used by the ASCD Publications Committee as it studies needs and makes plans for the future. The Committee works during the annual ASCD conference to identify areas that should be represented in the journal and other Association publications during the coming year and, in the case of yearbooks and booklets, during the next several years.

This should serve both as a reminder to you and an assurance. We *remind* you that it is important for you to take the time and thought needed to give a careful and prompt response to this invitation. Our *assurance* is given that your response, along with that of other members and friends of the Association, will be brought to the attention of the Publications Committee. This group is charged with the responsibility of studying the needs of our membership and of the profession in relation to ASCD publications and of drawing up and recommending to the Executive Committee plans for future publications.

Now may we invite you, as a reader of the journal, to send us your own ideas as to the areas or concerns that should be treated in the journal or in some other ASCD publication in the near future? We will welcome such a response from you.

New and forthcoming. Issued in October was the new ASCD booklet, *The Self-Contained Classroom,* edited by Edith Roach Snyder. This publication, written by Dr. Snyder and several of her colleagues in Michigan at the request of the Association, presents the case for the self-contained classroom organization at the elementary school and junior high school levels. Of considerable interest have been the comments of editorial writers and reviewers in newspapers and periodicals since the release of this title.

Now being readied for its January 8 publication date is the ASCD 1961 Yearbook, *Balance in the Curriculum.* Planned and written by a committee under chairmanship of Paul Halverson, of Syracuse University, this volume will present a discussion-in-depth of the

issues and problems involved in any approach to achieving or maintaining a so-called "balance" in the curriculum.

Next booklet publication of the Association will be *Human Variability and Learning,* under editorship of Walter Waetjen. This publication is based on the scholarly papers presented during the Fifth Curriculum Research Institutes, sponsored by ASCD in cooperation with the National Institute of Mental Health.

Rendezvous with history. Possibly coincidence, certainly of personal interest to your editor, are the locale of his vacation of the past summer and a recent trend in his leisure reading. Two weeks spent in the vicinity of Portland, Maine, were memorable for the beauty of the Casco Bay area, and for a pervading sense of our historical and cultural heritage. Visits by bus to Kennebunkport, to Pemaquid Point, and to Bangor, Maine, and to Littleton, New Hampshire, in the White Mountains, gave renewed interest and meaning to the accounts of colonial history and of the American Revolution.

High light of the Maine days was a visit with Mary Hazell, former executive secretary of the Department of Supervisors and Directors of Curriculum (one of the parent organizations of ASCD), at her home on Bailey Island, a most picturesque and historic spot. Also visited briefly were Mr. and Mrs. Frank Houdlette, of Bridge Farm, Dresden Mills, Maine. Mrs. Houdlette was formerly education consultant with the American Association of University Women, in Washington, D. C.

General topic of the editor's summer reading seemed to be "history" or "cultural heritage." Some of the titles were: *Trending into Maine,* by Kenneth W. Roberts; *A Stillness at Appomattox,* by Bruce Catton; *D Day: The Longest Day,* by Cornelius Ryan; *Drive to Victory,* by Robert S. Allen.

Also pleasant and instructive was a reading of the several "North Star Books," published by the Houghton Mifflin Company. "Good history makes good reading," is the theme of these volumes. They are especially suitable for young people of junior high school age. Titles read and enjoyed are: *Washington and the Revolution,* by Lynn Montross; *Thoreau of Walden Pond,* by Sterling North; *Robert E. Lee,* by Jonathan Daniels; *Jenny Lind Sang Here,* by Bernardine Kielty; *Around the World with Nellie Bly,* by Emily Hahn; *Down the Colorado with Major Powell,* by James Ramsey Ullman; *The First Northwest Passage,* by Walter O'Meara; and *Ticonderoga, the Story of a Fort,* by Bruce Lancaster. Sterling North is General Editor of the series. The typography and style are excellent. Commendable is the series' insistence on careful research by its distinguished authors and illustrators. Are we "teaching," or transmitting, the values that have made us great? The answer is affirmative, if books of this quality are available to young people.

Notable exception to the "history and cultural heritage" trend was a deeply savored reading of *Becoming: Basic Considerations for a Psychology of Personality,* by Gordon W. Allport (New Haven: Yale University Press, 1955, 101 p.).

Our greetings. So much for summer reminiscence. Now the holiday season approaches, and our thoughts go out to our readers, contributors, friends throughout the land. Our greetings and good wishes to each of you from each of the headquarters staff!

—Robert R. Leeper, *Editor,* Educational Leadership.

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